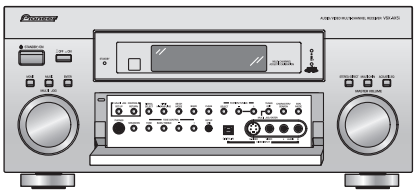
Pioneer sound.vision.soul

Service Manual



VSX-AX5i-S

ORDER NO.
RRV2801

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-AX5i-S
VSX-AX3-S
VSX-AX3-K

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	The voltage can be converted by the following method.
VSX-AX5i-S	HYXJI	AC220-230V	AC240V, *
VSX-AX3-S	HYXJI	AC220-230V	AC240V, *
VSX-AX3-K	HYXJI	AC220-230V	AC240V, *

***:Alter the wiring of the power-supply block at the primary winding of Power transformer referring to the Line Voltage Selection described in Service Manual.**

For details, refer to "Important symbols for good services".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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ⓒPIONEER CORPORATION 2003

T-ZZE JULY 2003 printed in Japan

SAFTY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

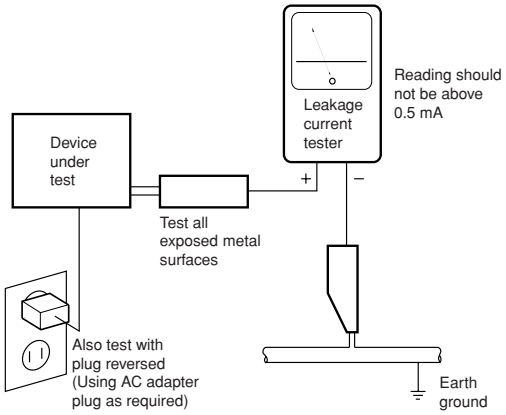
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

■ VSX-AX5i-S

Continuous Power Output (DIN)
- Front .....100 W + 100 W (DIN 1 kHz, THD 1%, 8 Ω)
- Center.....100 W (DIN 1 kHz, THD 1%, 8 Ω)
- Surround.....100 W + 100 W (DIN 1 kHz, THD 1%, 8 Ω)
- Surround Back .....100 W + 100 W (DIN 1 kHz, THD 1%, 8 Ω)

Rated Power Output.....100 W + 100 W (20 Hz – 20 kHz, 0.09 %, 8 Ω)

Audio Section

Input (Sensitivity/Impedance)
- PHONO MM .....4.7 mV/47 kΩ
- LINE .....335 mV/47 kΩ

Frequency Response
- PHONO MM ..... 20 Hz to 20,000 Hz ± 0.3 dB
- LINE ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)
- LINE .....335 mV/2.2 kΩ

Tone Control
- BASS ..... ± 6 dB (100 Hz)
- TREBLE.....± 6 dB (10 kHz)
- LOUDNESS..... +4/+2 dB (100Hz/10 kHz) (at volume position -40dB)

Signal-to-Noise Ratio (IHF, short circuited, A network)
- LINE .....101 dB

Signal-to-Noise Ratio [DIN (Continuous rated power output/50 mW)]
- LINE ..... 92/65 dB

Video Section (S jack)

Input (Sensitivity/Impedance) .....1 Vp-p/75 Ω
Output (Level/Impedance).....1 Vp-p/75 Ω
Frequency Response.....5 Hz to 10 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio .....65 dB

Video Section (Component)

Input (Sensitivity) .....1 Vp-p/75 Ω
Output (Level/Impedance).....1 Vp-p/75 Ω
Frequency Response.....5 Hz to 40 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio .....65 dB

Video Section (Composite)

Input (Sensitivity/Impedance)
- LINE..... 1 Vp-p/75 Ω

Output (Level/Impedance)
- LINE..... 1 Vp-p/75 Ω

Frequency Response
- LINE..... 5 Hz to 10 MHz $^{+0}_{-3}$ dB

Signal-to-Noise Ratio ..... 65 dB

FM Tuner Section

Frequency Range .....87.5 MHz to 108 MHz
Usable Sensitivity..... Mono: 15.2 dBf, IHF (1.6 µV/75 Ω)
50 dB Quieting Sensitivity ..... Mono: 20.2 dBf, Stereo: 41.2 dBf
Sensitivity (DIN)..... Mono: 1.1 µV (S/N 26 dB), Stereo: 50 µV (S/N 46 dB)
Signal-to-Noise Ratio .....Mono: 76 dB (at 85 dBf), Stereo: 72 dB (at 85 dBf)
Signal-to-Noise Ratio (DIN)..... Mono: 62 dB, Stereo: 58 dB
Distortion .....Stereo: 0.6 % (1 kHz)
Alternate Channel Selectivity..... 70 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response..... 30 Hz to 15 kHz (± 1 dB)
Antenna Input .....75 Ω unbalanced

AM Tuner Section

Frequency Range .....531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna).....350 µV/m
Selectivity.....30 dB
Signal-to-Noise Ratio .....50 dB
Antenna .....Loop antenna

Miscellaneous

Power Requirements ..... AC 220 – 230 V, 50/60 Hz
Power Consumption ..... 600 W
Power Consumption in Standby mode ..... 0.8 W
AC Outlet SWITCHED..... 100 W (0.8 A) MAX
Dimensions .....420 (W) × 188 (H) × 464 (D) mm
Weight (without package) .....19.8 kg

Furnished Parts

FM wire Antenna.....1
AM loop Antenna.....1
"AA" IEC LR6 batteries.....4
Remote Control Unit.....1
Microphone for Auto Surround Sound Setup 1
Microphone Stand for Auto Surround Sound Setup.....1
AC Power Cord 1
Operating Instructions 1

NOTE:
Specifications and the design are subject to possible modifications without notice, due to improvements.

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- "DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.

■ VSX-AX3-S, -K

Continuous Power Output (DIN)
Front.....100 W +100 W (DIN 1 kHz, THD 1%, 8 Ω)
Center.....100 W (DIN 1 kHz, THD 1%, 8 Ω)
Surround.....100 W +100 W (DIN 1 kHz, THD 1%, 8 Ω)
Surround Back
.....100 W +100 W (DIN 1 kHz, THD 1%, 8 Ω)
Rated Power Output.....100 W + 100 W
(20 Hz – 20 kHz, 0.09 %, 8 Ω)

Audio Section

Input (Sensitivity/Impedance)
LINE.....335 mV/47 kΩ
Frequency Response
LINE.....5 Hz to 100,000 Hz $^{+0}_{-3}$ dB
Output (Level/Impedance)
LINE.....335 mV/2.2 kΩ
Tone Control
BASS.....± 6 dB (100 Hz)
TREBLE.....± 6 dB (10 kHz)
LOUDNESS..... +4/+2 dB (100Hz/10 kHz)
(at volume position –40dB)
Signal-to-Noise Ratio (IHF, short circuited, A network)
LINE.....101 dB
Signal-to-Noise Ratio
[DIN (Continuous rated power output/50 mW)]
LINE..... 92/65 dB

Video Section (S jack)

Input (Sensitivity/Impedance).....1 Vp-p/75 Ω
Output (Level/Impedance).....1 Vp-p/75 Ω
Frequency Response.....5 Hz to 10 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio.....65 dB

Video Section (Composite)

Input (Sensitivity/Impedance)
LINE.....1 Vp-p/75 Ω
Output (Level/Impedance)
LINE.....1 Vp-p/75 Ω
Frequency Response
LINE.....5 Hz to 10 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio.....65 dB

FM Tuner Section

Frequency Range.....87.5 MHz to 108 MHz
Usable Sensitivity..... Mono: 15.2 dBf, IHF (1.6 µV/75 Ω)
50 dB Quieting Sensitivity.....Mono: 20.2 dBf
Stereo: 41.2 dBf
Sensitivity (DIN)..... Mono: 1.1 µV (S/N 26 dB)
Stereo: 50 µV (S/N 46 dB)
Signal-to-Noise Ratio .....Mono: 76 dB (at 85 dBf)
Stereo: 72 dB (at 85 dBf)
Signal-to-Noise Ratio (DIN) ..... Mono: 62 dB
Stereo: 58 dB
Distortion .....Stereo: 0.6 % (1 kHz)
Alternate Channel Selectivity ..... 70 dB (400 kHz)
Stereo Separation..... 40 dB (1 kHz)
Frequency Response..... 30 Hz to 15 kHz (± 1 dB)
Antenna Input.....75 Ω unbalanced

AM Tuner Section

Frequency Range.....531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna).....350 µV/m
Selectivity.....30 dB
Signal-to-Noise Ratio .....50 dB
Antenna.....Loop antenna

Miscellaneous

Power Requirements..... AC 220 – 230 V, 50/60 Hz
Power Consumption..... 600 W
Power Consumption in Standby mode..... 0.8 W
AC Outlet SWITCHED .....100 W (0.8 A) MAX
Dimensions.....420 (W) × 188 (H) × 464 (D) mm
Weight (without package).....18.3 kg

Furnished Parts

FM wire Antenna 1
AM loop Antenna 1
"AA" IEC LR6 batteries 2
Remote Control Unit 1
Microphone for Auto Surround Sound Setup.....1
Microphone Stand for Auto Surround Sound Setup.....1
AC Power Cord 1
Operating Instructions.....1

NOTE:
Specifications and the design are subject to possible modifications without notice, due to improvements.

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- "DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.

A

B

C

D

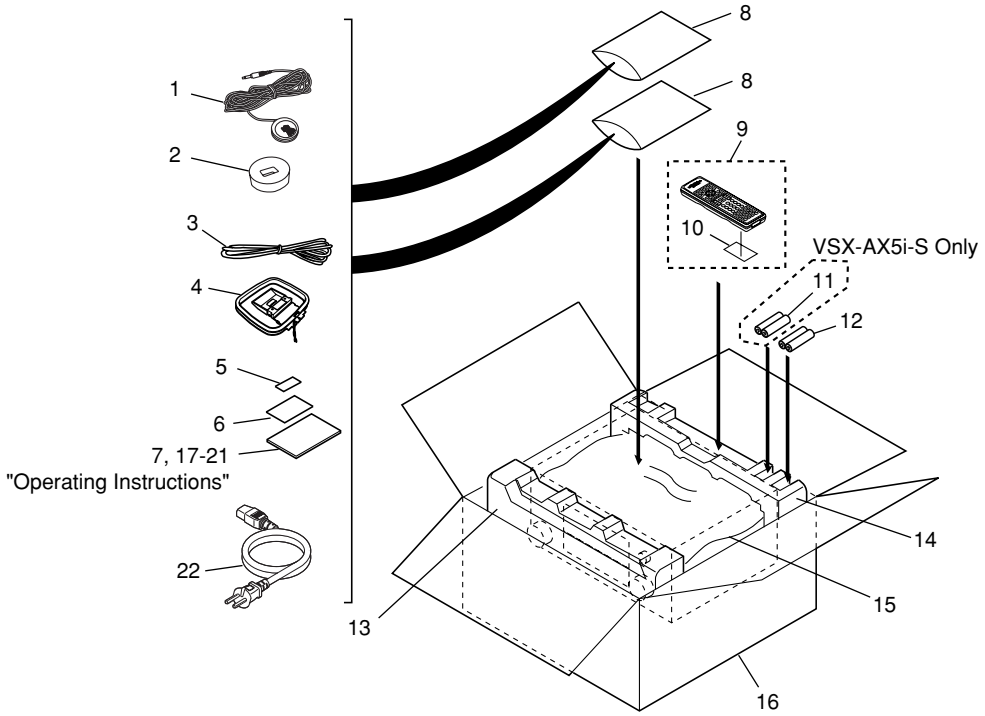
E

F

2. EXPLODED VIEWS AND PARTS LIST

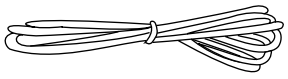
NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING



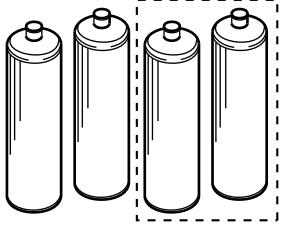
● Accessories

AM Loop Antenna
(ATB7009)

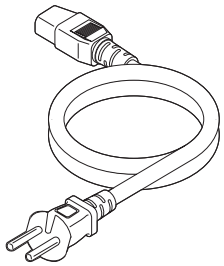


FM Wire Antenna
(ADH7030)

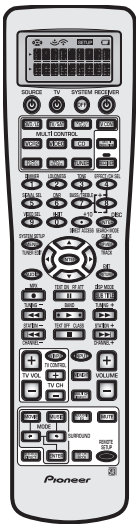
VSX-AX5i-S Only



Dry Cell Battery
(LR6, AA)

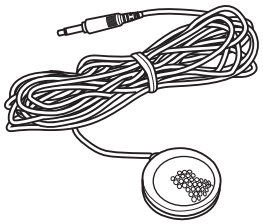


AC Power Cord
(ADG7062)

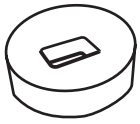


Remote Control Unit
(VSX-AX5i-S : AXD7364)

Remote Control Unit
(VSX-AX3-S, -K : AXD7366)



Microphone for Auto
Surround Sound Setup
(APM7004)



Microphone Stand for Auto
Surround Sound Setup
(AEB7269)

PACKING parts List

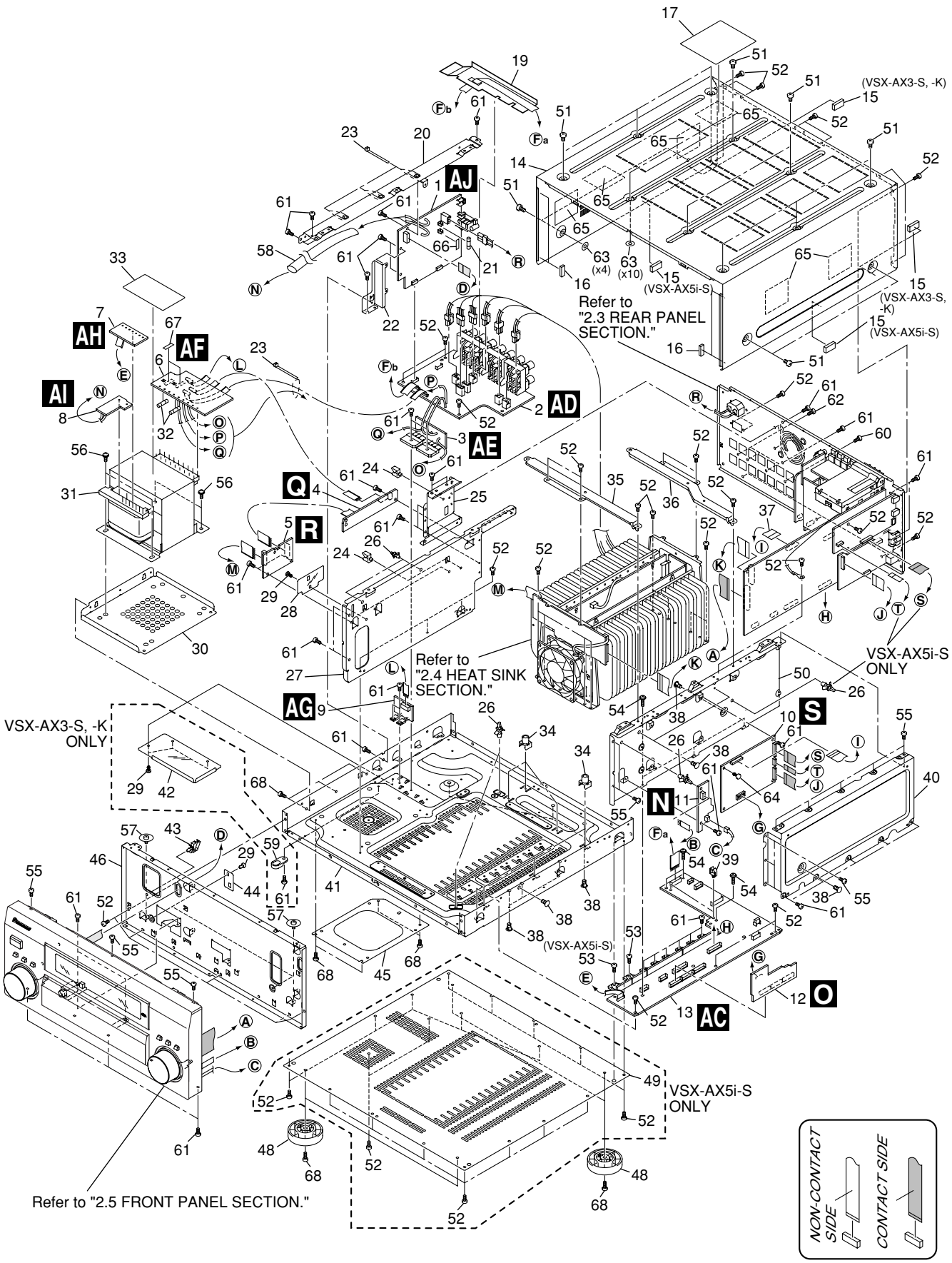
Mark	No.	Description	Part No.
	1	MIC Assy	APM7004
	2	MIC Stand 45	AEB7269
	3	FM Wire Antenna	ADH7030
	4	AM Loop Antenna	ATB7009
	5	Caution Sheet SP,E	ARM7056
NSP	6	Warranty Card	ARY7065
	7	Operating Instructions (English)	See Contrast table (2)
NSP	8	Polyetylene Bag (0.03*230*340)	Z21-038
	9	Remote Control Unit	See Contrast table (2)
	10	Battery Cover	See Contrast table (2)
NSP	11	Alkaline Dry Cell Battery (LR6, AA)	See Contrast table (2)
NSP	12	Alkaline Dry Cell Battery (LR6, AA)	VEM1023
	13	Front Pad 45	AHA7374
	14	Rear Pad 45	AHA7375
	15	Packing Sheet	RHC1023
	16	Packing Case	See Contrast table (2)
	17	Operating Instructions (French)	See Contrast table (2)
	18	Operating Instructions (German)	See Contrast table (2)
	19	Operating Instructions (Italian)	See Contrast table (2)
	20	Operating Instructions (Spanish)	See Contrast table (2)
	21	Operating Instructions (Dutch)	See Contrast table (2)
⚠	22	AC Power Cord	ADG7062

(2) CONTRAST TABLE

VSX-AX5i-S/HYXJI, VSX-AX3-S/HYXJI and VSX-AX3-K/HYXJI are constructed the same except for the following:

Mark	NO	Symbol and Description	VSX-AX5i-S/ HYXJI	VSX-AX3-S/HYXJI	VSX-AX3-K/HYXJI
	7	Operating Instructions (English)	ARB7286	ARB7287	ARB7287
	9	Remote Control Unit	AXD7364	AXD7366	AXD7366
	10	Battery Cover	AZN7940	AZA7424	AZA7424
NSP	11	Alkaline Dry Cell Battery (LR6, AA)	VEM1023	Not used	Not used
	16	Packing Case	AHD8200	AHD8204	AHD8205
	17	Operating Instructions (French)	ARC7477	ARC7483	ARC7483
	18	Operating Instructions (German)	ARC7478	ARC7484	ARC7484
	19	Operating Instructions (Italian)	ARC7479	ARC7485	ARC7485
	20	Operating Instructions (Spanish)	ARC7480	ARC7486	ARC7486
	21	Operating Instructions (Dutch)	ARC7481	ARC7487	ARC7487

2.2 EXTERIOR SECTION



EXTERIOR SECTION parts List

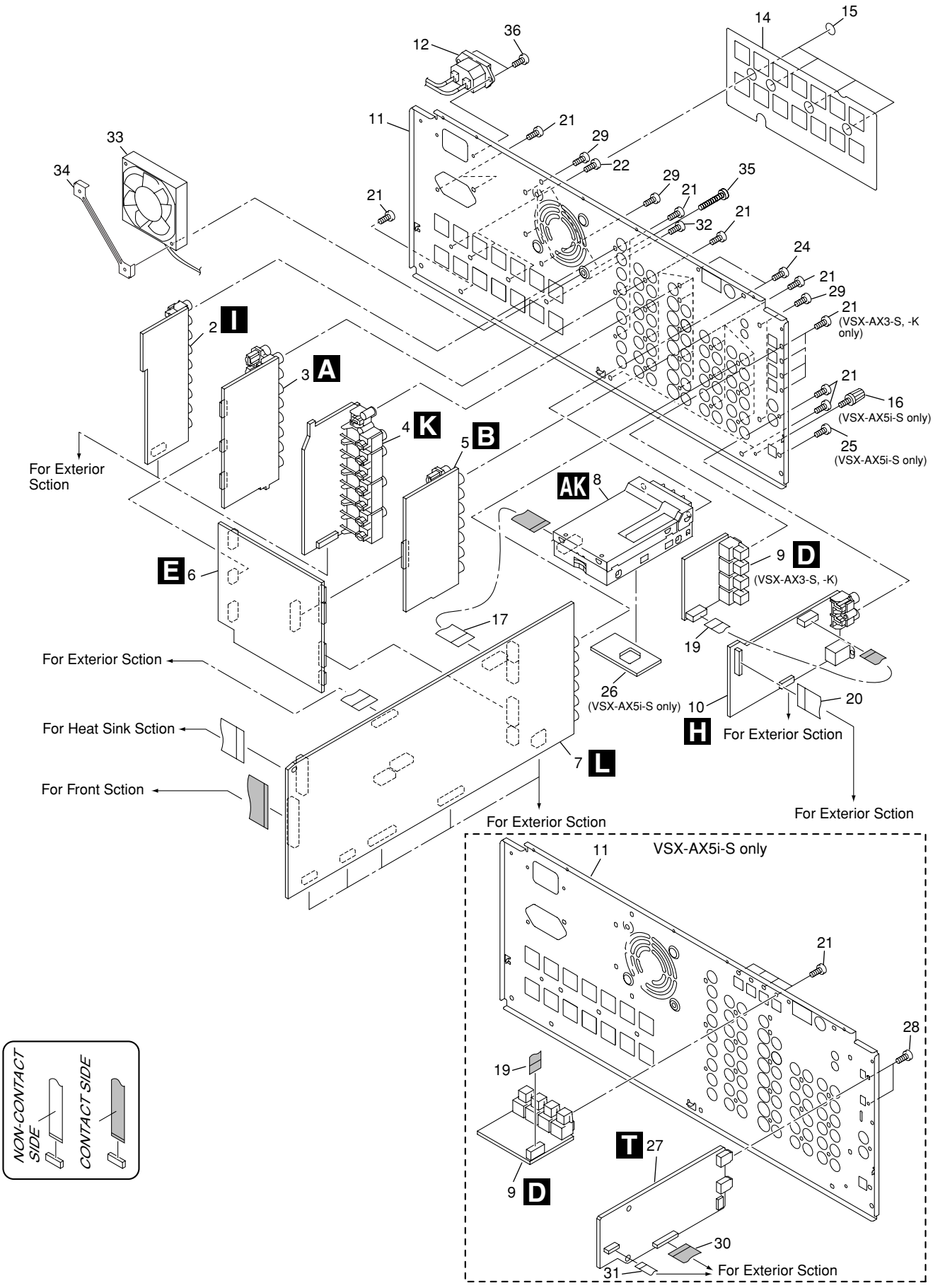
Mark	No.	Description	Part No.
	1	PRIMARY Assy	AWX7998
	2	SP/PS Assy	See Contrast table (2)
	3	DIODE Assy	AWX8017
	4	FAN CONNECTION Assy	AWX8005
	5	FAN DRIVE Assy	AWX8135
	6	TRANS 2-1 Assy	AWX8326
	7	TRANS 2-2 Assy	AWX7970
	8	TRANS 1 Assy	AWX7969
	9	VH TR Assy	AWX8018
	10	DSP ASSY	AWX8249
	11	MIC AMP Assy	AWX8004
	12	DSP CONNECTION Assy	See Contrast table (2)
	13	REGULATOR Assy	See Contrast table (2)
	14	Bonnet Case	See Contrast table (2)
	15	Spacer 45A	AEB7263
	16	Spacer 45B	AEB7264
	17	Label (DD/DTS/THX)	ARW7177
	18	• • • • • •	
	19	Barrier 45	AEC7444
	20	Left Beam 45	ANG7401
⚠	21	FU1 Fuse (4A)	REK-106
	22	Primary Angle 35	ANG7301
NSP	23	Binder	ZCA-BK1
NSP	24	Mini Clamp	VEC1597
	25	Fan Box 45	ANG7413
	26	Locking Card Spacer	PNW2917
	27	Trans Shield 45	ANG7400
	28	Styling Sheet B	AEC7437
	29	Push Rivet	AEC7370
	30	Trans Frame 45	ANG7399
⚠	31	T1 Power Transformer	ATS7329
⚠	32	FU4,FU5 Fuse (2.5A)	REK1026
NSP	33	Trans Label 45	AAX7957
	34	PCB Mold	AMR2534
	35	Bridge Frame 45F	ANG7409
	36	Bridge Frame 45R	ANG7410
	37	J7 21P FFC/60V	ADD7355
	38	Card Spacer	DNK2769
	39	• • • • • •	
	40	DSP Shield 45B	ANG7403
NSP	41	Under Base	See Contrast table (2)
	42	Screw Cover 45A	See Contrast table (2)
NSP	43	Wire Saddle	DEC1450
	44	Styling Sheet	AEC7413
	45	Stabilizer 45	ANG7408
NSP	46	Panel Stay 45	AND7047
	47	• • • • • •	
	48	Insulator	See Contrast table (2)
	49	Bottom Plate 45	See Contrast table (2)
	50	DSP Shield 45A	See Contrast table (2)
	51	Screw	See Contrast table (2)
	52	Screw	BBZ30P080FCC
	53	Screw	BBZ30P100FCC
	54	Screw	IBZ30P150FCC
	55	Screw	BBT30P080FCC
	56	Screw	ABA7066
	57	Screw	ABA7009
	58	UL Tube	ADN7007
	59	Screw Cover	See "2.5 FRONT PANEL SECTION" No. 19-3
	60	Screw	ABA1208
	61	Screw	IBZ30P080FCC
	62	Screw	IBZ30P100FCC
	63	Spacer Circle	AEC7330
	64	Nylon Rivet	AEC7408
	65	Bonnet Sheet	AEB7265
NSP	66	Fuse Card	AAX7099
NSP	67	Fuse Card	AAX7277
	68	Screw	See Contrast table (2)

(2) CONTRAST TABLE

VSX-AX5i-S/HYXJI, VSX-AX3-S/HYXJI and VSX-AX3-K/HYXJI are constructed the same except for the following:

Mark	NO	Symbol and Description	VSX-AX5i-S/HYXJI	VSX-AX3-S/HYXJI	VSX-AX3-K/HYXJI
	2	SP/PS Assy	AWX8308	AWX8039	AWX8039
	12	DSP CONNECTION Assy	AWX8299	AWX8024	AWX8024
	13	REGULATOR Assy	AWX8305	AWX8020	AWX8020
	14	Bonnet Case	AZN7899	AZN7899	AZN7897
NSP	41	Under Base	ANA7138	ANA7158	ANA7158
	42	Screw Cover 45A	Not used	AEC7414	AEC7414
	48	Insulator	VXA2368	PNW2766	PNW2766
	49	Bottom Plate 45	ANF7031	Not used	Not used
	50	DSP Shield 1394A	ANG7420	Not used	Not used
	50	DSP Shield 45A	Not used	ANG7402	ANG7402
	51	Screw	BBZ40P080FCC	BBZ40P080FCC	BBZ40P080FZK
	68	Screw	BBZ30P080FCC	IBZ30P080FCC	IBZ30P080FCC

2.3 REAR PANEL SECTION



REAR PANEL SECTION parts List

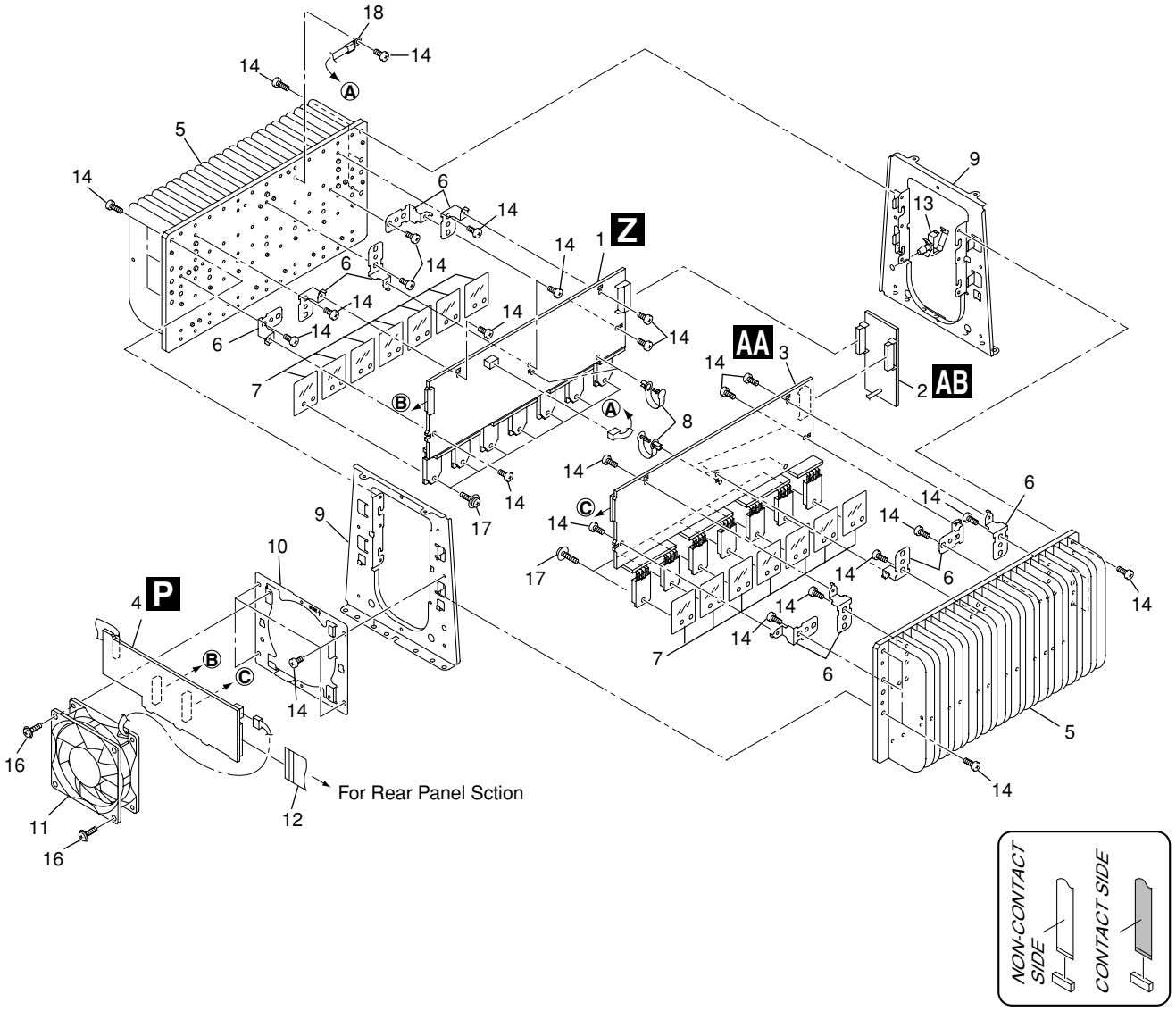
Mark	No.	Description	Part No.
	1	• • • • • •	
	2	COMPONENT Assy	See Contrast table (2)
	3	7.1CH I/O Assy	See Contrast table (2)
	4	VIDEO Assy	See Contrast table (2)
	5	V-AUDIO IN Assy	See Contrast table (2)
	6	INPUT CONNECT Assy	AWX8041
	7	MAIN CONTROL Assy	See Contrast table (2)
	8	FM/AM TUNER Module	AXQ7232
	9	OPTICAL IN Assy	AWX7978
	10	COAXIAL IN Assy	See Contrast table (2)
	11	Rear Panel	See Contrast table (2)
⚠	12	AC Inlet Assy	ADX7411
	13	• • • • • •	
	14	Speaker Sheet	AAK8016
	15	Cushion Circle 16B	AED7052
	16	Screw with Terminal	See Contrast table (2)
	17	J8 13P FFC/60V	ADD7356
	18	• • • • • •	
	19	J5 9P FFC/60V	See Contrast table (2)
	20	J6 20P FFC/60V	ADD7354
	21	Screw	BBZ30P080FCC
	22	Screw	IBZ30P100FCC
	23	• • • • • •	
	24	Screw	VPZ30P100FZK
	25	Screw	See Contrast table (2)
	26	Tuner Spacer	See Contrast table (2)
	27	1394 Assy	See Contrast table (2)
	28	Screw	See Contrast table (2)
	29	Screw	IBZ30P080FCC
	30	J16 22P FFC/60V	See Contrast table (2)
	31	J17 10P FFC/60V	See Contrast table (2)
	32	Screw	ABA1208
⚠	33	Fan Motor	AXM7020
	34	Fan Plate	ANG7153
	35	Screw	BBZ30P200FZK
	36	Screw	CBZ30P080FZK

(2) CONTRAST TABLE

VSX-AX5i-S/HYXJI, VSX-AX3-S/HYXJI and VSX-AX3-K/HYXJI are constructed the same except for the following:

Mark	NO	Symbol and Description	VSX-AX5i-S/ HYXJI	VSX-AX3-S/HYXJI	VSX-AX3-K/HYXJI
	2	COMPONENT Assy	AWX8293	AWX8296	AWX8296
	3	7.1CH I/O Assy	AWX8306	AWX7973	AWX7973
	4	VIDEO Assy	AWX8312	AWX8322	AWX8322
	5	V-AUDIO IN Assy	AWX8314	AWX7991	AWX7991
	7	MAIN CONTROL Assy	AWX8287	AWX8291	AWX8291
	10	COAXIAL IN Assy	AWX8300	AWX8323	AWX8323
	11	Rear Panel	ANC8193	ANC8197	ANC8198
	16	Screw with Terminal	AKE-031	Not used	Not used
	19	J5 9P FFC/60V	ADD7430	ADD7353	ADD7353
	25	Screw	PMZ30P060FCC	Not used	Not used
	26	Tuner Spacer	AEB7314	Not used	Not used
	27	1394 Assy	AWK7768	Not used	Not used
	28	Screw	PCZ26P060FMC	Not used	Not used
	30	J16 22P FFC/60V	ADD7431	Not used	Not used
	31	J17 10P FFC/60V	ADD7432	Not used	Not used

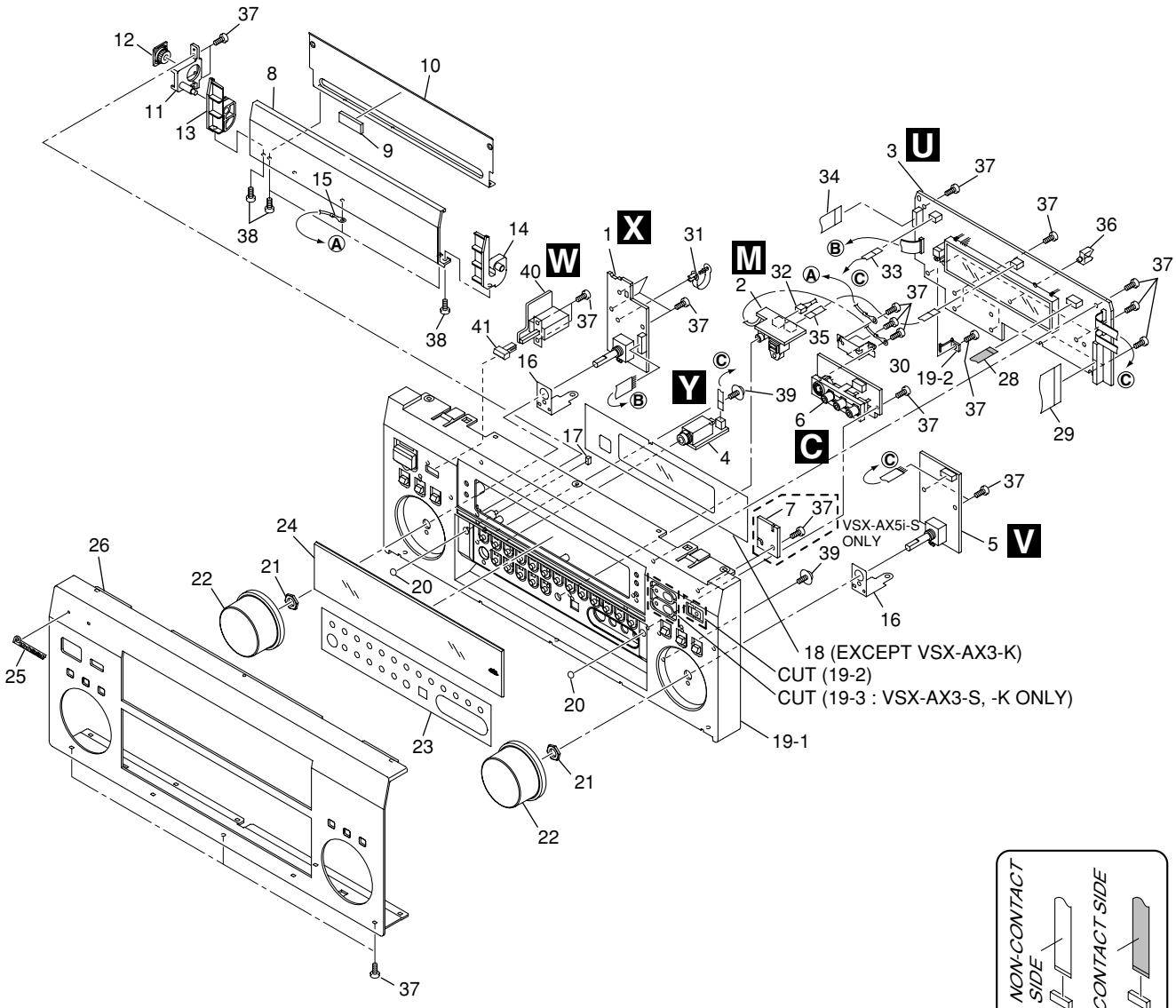
2.4 HEAT SINK SECTION



HEAT SINK SECTION parts List

Mark	No.	Description	Part No.
	1	POWER AMP-L Assy	AWX7984
	2	POWER AMP-C Assy	AWX7986
	3	POWER AMP-R Assy	AWX7985
	4	POWER AMP IN Assy	AWX7982
NSP	5	Heat Sink 45	ANH7152
	6	PCB Angle 45	ANG7406
	7	Mica Sheet 45	AEE7047
NSP	8	Speed Clamp	AEC7445
	9	H.S Angle 45	ANG7404
	10	Fan Holder 80	ANG7407
⚠	11	Fan Motor	AXM7023
	12	J14 24P FFC/60V	ADD7357
NSP	13	Wire Saddle	DEC1450
	14	Screw	BBZ30P100FCC
	15	• • • • •	
	16	Screw	BBZ30P300FMC
	17	Screw	ABA7085
⚠	18	TH1 Thermistor	AEX7004

2.5 FRONT PANEL SECTION



FRONT PANEL SECTION parts List

Mark	No.	Description	Part No.
	1	MULTI JOG Assy	AWX8015
	2	MIC & F.OPT IN Assy	AWX7981
	3	DISPLAY Assy	See Contrast table (2)
	4	HEADPHONE Assy	AWX7980
	5	VOLUME Assy	AWX7971
	6	FRONT IN Assy	AWX8186
	7	STYLING Assy	• • • • •
	8	Door	See Contrast table (2)
	9	Spacer 45A	AEB7263
	10	Door Stay	See Contrast table (2)
	11	Door Shaft 35	AMR7295
	12	Damper Assy (200)	AXA7088
	13	Door Hinge L	See Contrast table (2)
	14	Door Hinge R	See Contrast table (2)
NSP	15	Earth Lead Wire	ADH7022
	16	Earth Plate B	ANG7412
	17	Magnet 35	AMF7007
	18	FL Sheet	See Contrast table (2)
	19-1	Panel Base	See Contrast table (2)
	19-2	Magnet Holder	
	19-3	Screw Cover	
	20	Cushion Circle	See Contrast table (2)
	21	Nut	NK90FUC
	22	Rotary Knob L	See Contrast table (2)
	23	D.Sheet	See Contrast table (2)
	24	Window	See Contrast table (2)
	25	Pioneer Badge	See Contrast table (2)
	26	F.Panel	See Contrast table (2)
	27	• • • • •	
	28	J4 7P FFC/60V	ADD7352
	29	J1 32P FFC/60V	ADD7349
	30	Earth Plate A	ANG7411
NSP	31	Speed Clamp	AEC7445
	32	J1901 Connector Assy (3P)	ADE7084
	33	J15 3P FFC/60V	ADD7371
	34	J2 11P FFC/60V	ADD7350
	35	J3 4P FFC/60V	ADD7351
NSP	36	Wire Clip (A)	VEC1335
	37	Screw	BPZ30P100FMC
	38	Screw	BBZ30P080FCC
	39	Screw	ABA7009
	40	MECHA SW Assy	AWX7995
	41	Power Button	See Contrast table (2)

(2) CONTRAST TABLE

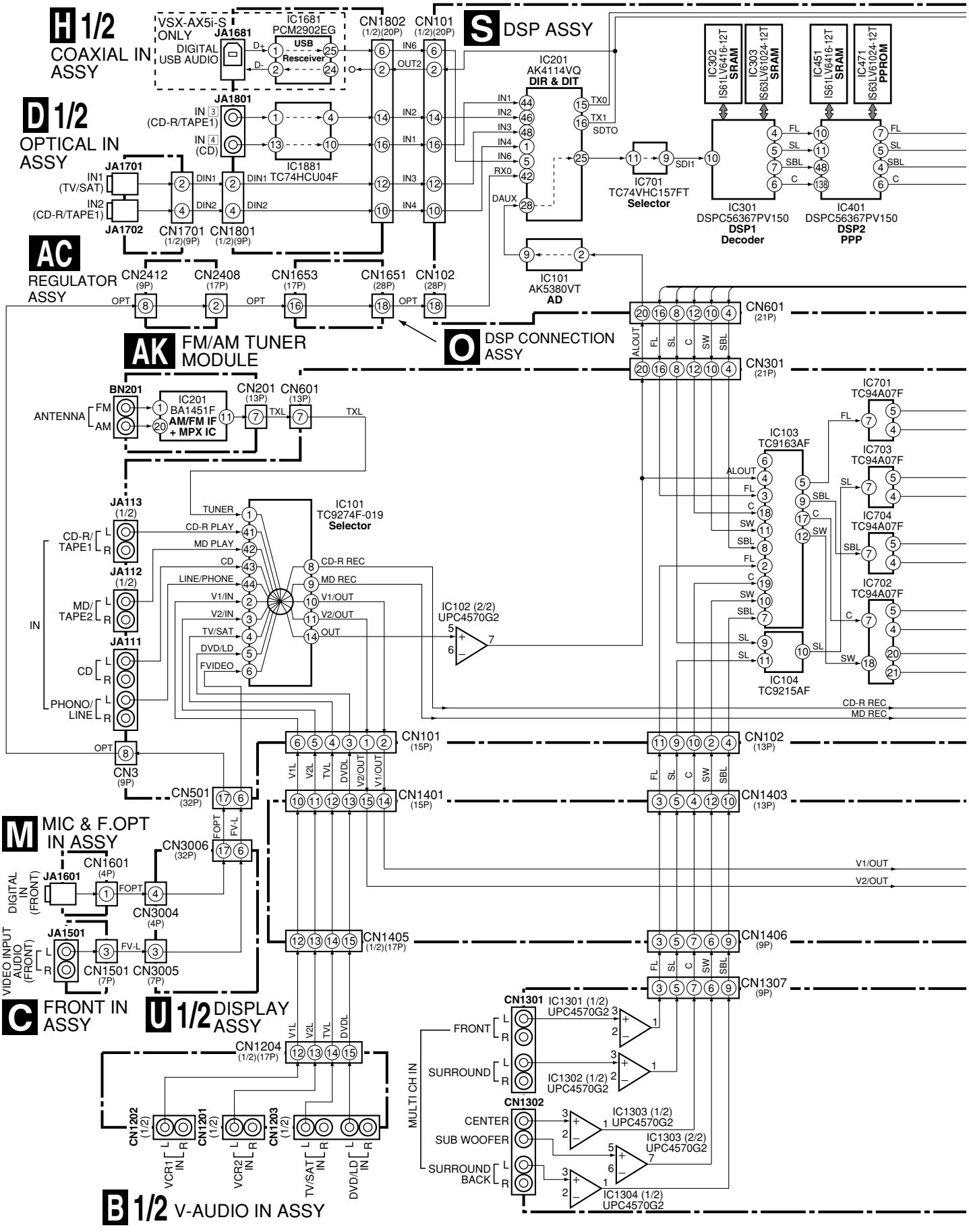
VSX-AX5i-S/HYXJI, VSX-AX3-S/HYXJI and VSX-AX3-K/HYXJI are constructed the same except for the following:

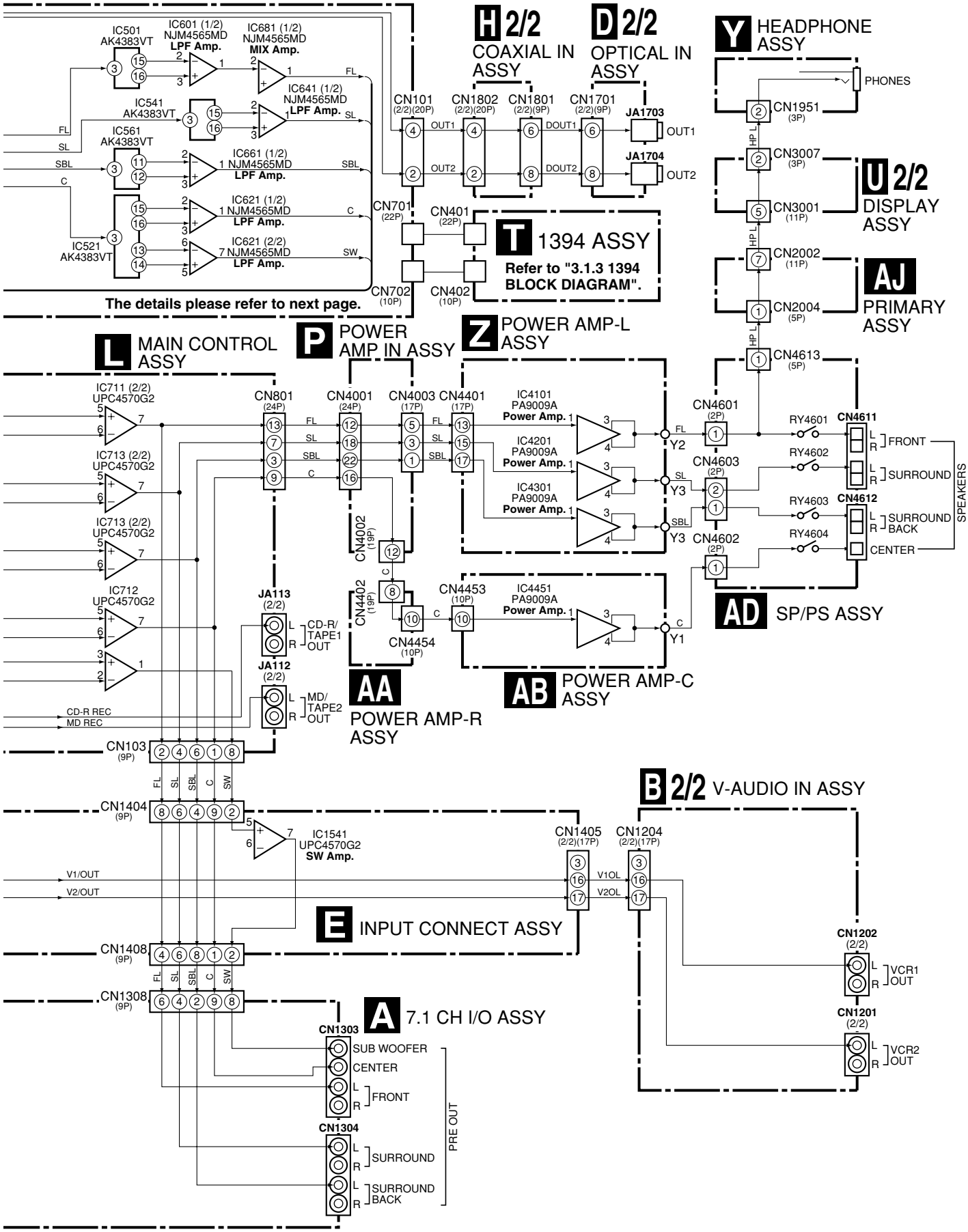
Mark	NO	Symbol and Description	VSX-AX5i-S/ HYXJI	VSX-AX3-S/HYXJI	VSX-AX3-K/HYXJI
	3	DISPLAY Assy	AWX8316	AWX8147	AWX8147
	8	Door	ANB7280	ANB7280	ANB7275
	10	Door Stay	AAH7097	AAH7097	AAH7089
	13	Door Hinge L	AMR7424	AMR7424	AMR7386
	14	Door Hinge R	AMR7425	AMR7425	AMR7387
	18	FL Sheet	AAK7956	AAK7956	Not used
	19-1	Panel Base	AMB7820	AMB7820	AMB7803
	20	Cushion Circle	AED7045	AED7045	AED7044
	22	Rotary Knob L	AAA7017	AAA7017	Not used
	22	VOL Knob	Not used	Not used	AAB7249
	23	D.Sheet	AAK8161	AAK8023	AAK8153
	24	Window	AAK8152	AAK8156	AAK8157
	25	Pioneer Badge	VAN1124	VAN1124	AAN7218
	26	F.Panel	ANB7313	ANB7317	ANB7318
	41	Power Button	AAD7675	AAD7675	AAD7647

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

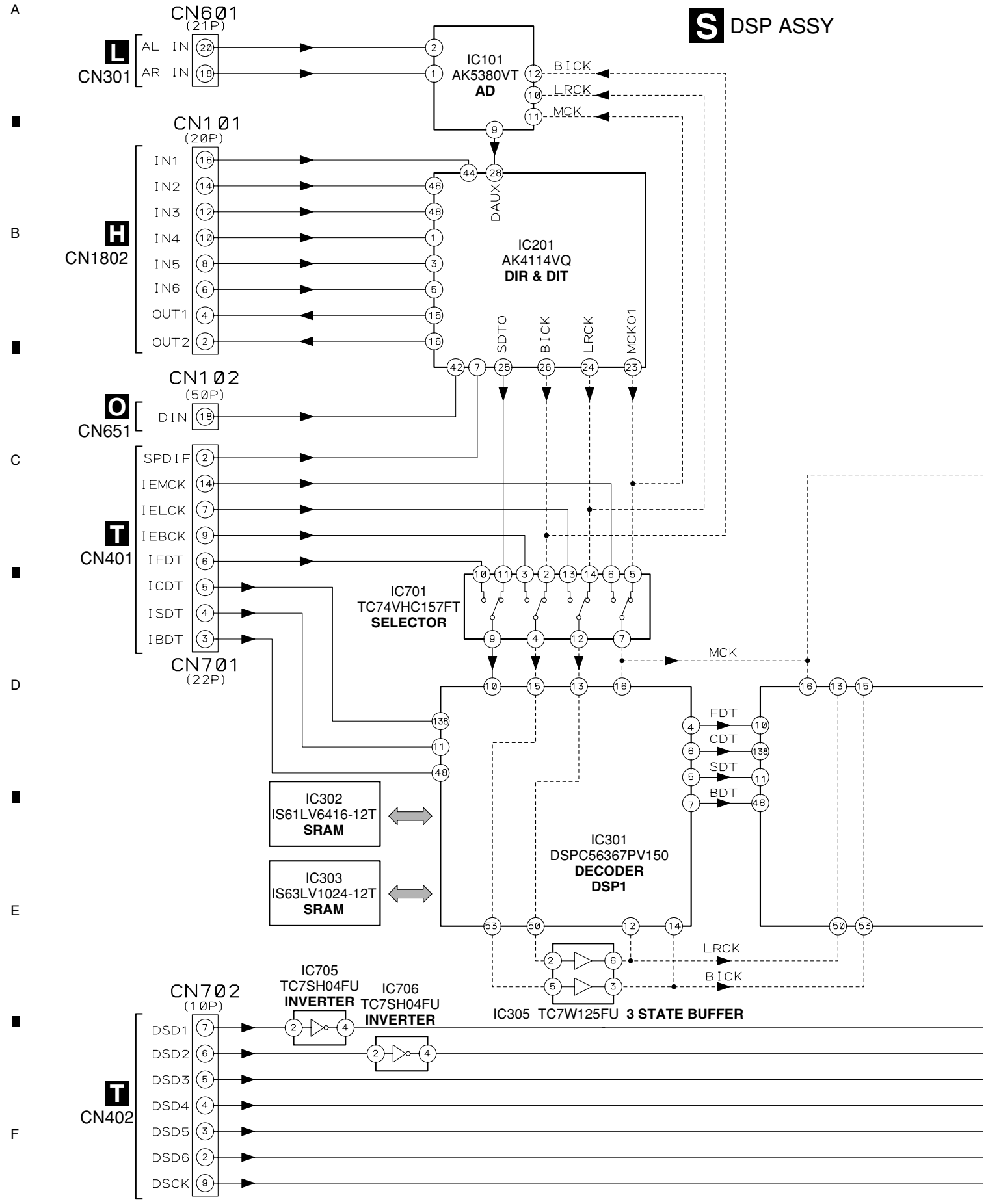
3.1 BLOCK DIAGRAM

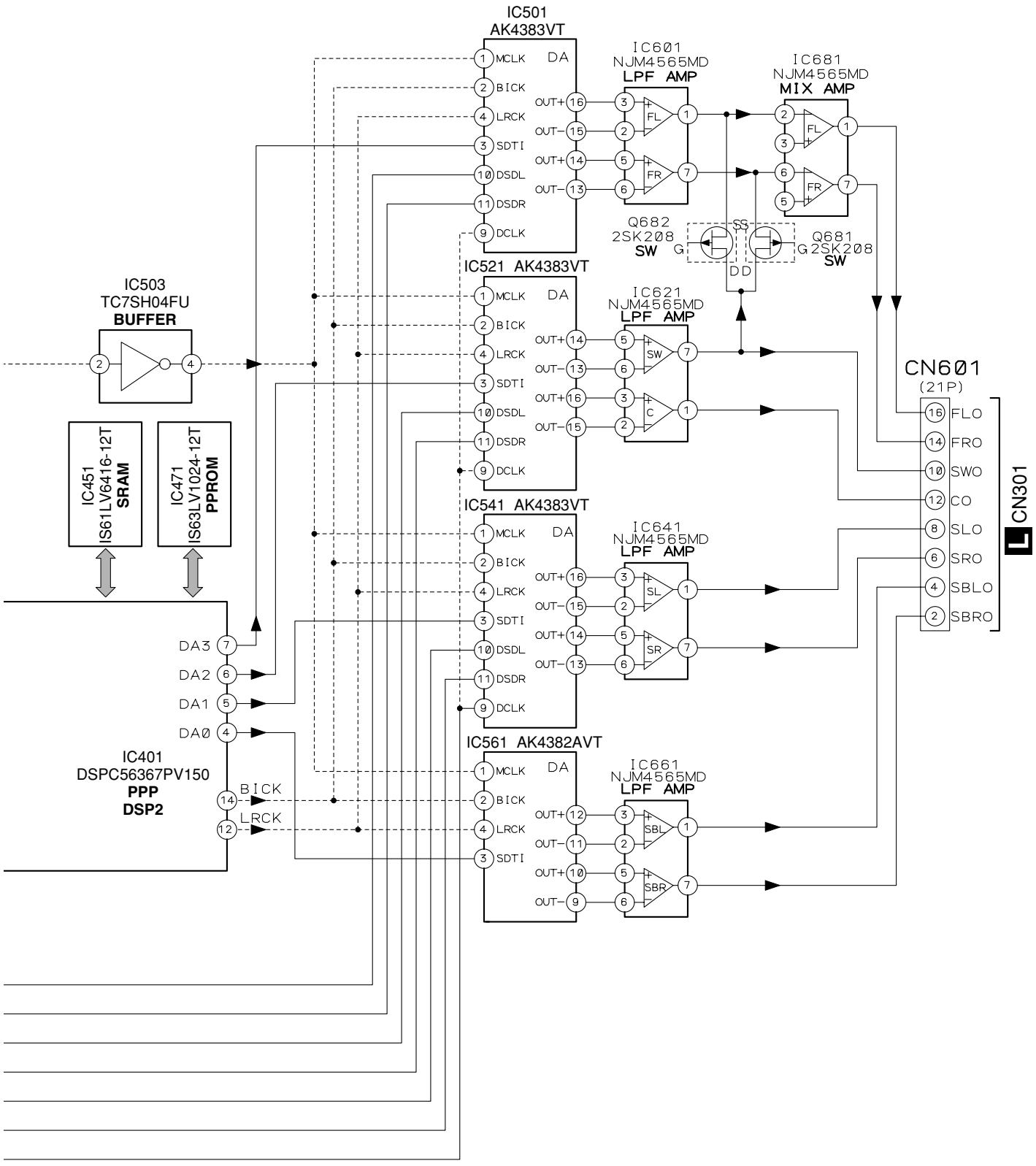
3.1.1 AUDIO BLOCK DIAGRAM




H 2/2 COAXIAL IN ASSY
D 2/2 OPTICAL IN ASSY
Y HEADPHONE ASSY
PHONES
CN1951 (3P)
U 2/2 DISPLAY ASSY
CN3007 (3P)
CN3001 (11P)
AJ PRIMARY ASSY
CN2002 (11P)
CN2004 (5P)
CN4613 (5P)
HP L
IC501 AK4383VT
IC601 (1/2) NJM4565MD LPF Amp.
IC681 (1/2) NJM4565MD MIX Amp.
IC641 (1/2) NJM4565MD LPF Amp.
IC541 AK4383VT
IC561 AK4383VT
IC661 (1/2) 1 NJM4565MD LPF Amp.
IC621 (1/2) 1 NJM4565MD LPF Amp.
IC621 (2/2) 7 NJM4565MD LPF Amp.
IC521 AK4383VT
FL
SL
SBL
C
SW
CN101 (2/2)(20P)
CN1802 (2/2)(20P)
CN1801 (2/2)(9P)
CN1701 (2/2)(9P)
JA1703
JA1704
OUT1
OUT2
DOUT1
DOUT2
CN701 (22P)
CN401 (22P)
CN702 (10P)
CN402 (10P)
T 1394 ASSY
Refer to "3.1.3 1394 BLOCK DIAGRAM".
The details please refer to next page.
L MAIN CONTROL ASSY
P POWER AMP IN ASSY
Z POWER AMP-L ASSY
IC711 (2/2) UPC4570G2
IC713 (2/2) UPC4570G2
IC712 UPC4570G2
CN801 (24P)
CN4001 (24P)
CN4003 (17P)
CN4401 (17P)
IC4101 PA9009A Power Amp.
IC4201 PA9009A Power Amp.
IC4301 PA9009A Power Amp.
CN4601 (2P)
CN4603 (2P)
CN4602 (2P)
RY4601
RY4602
RY4603
RY4604
CN4611
CN4612
FRONT
SURROUND
SURROUND BACK
CENTER
SPEAKERS
Y2
Y3
Y1
CN4002 (19P)
CN4402 (19P)
CN4453 (10P)
CN4454 (10P)
IC4451 PA9009A Power Amp.
AD SP/PS ASSY
JA113 (2/2)
JA112 (2/2)
CD-R/ TAPE1 OUT
MD/ TAPE2 OUT
CD-R REC
MD REC
AA POWER AMP-R ASSY
AB POWER AMP-C ASSY
CN103 (9P)
CN1404 (9P)
CN1408 (9P)
CN1308 (9P)
IC1541 UPC4570G2 SW Amp.
V1/OUT
V2/OUT
B 2/2 V-AUDIO IN ASSY
CN1405 (2/2)(17P)
CN1204 (2/2)(17P)
V1OL
V2OL
E INPUT CONNECT ASSY
CN1202 (2/2)
CN1201 (2/2)
VCR1 OUT
VCR2 OUT
A 7.1 CH I/O ASSY
CN1303
CN1304
SUB WOOFER
CENTER
FRONT
SURROUND
SURROUND BACK
PRE OUT

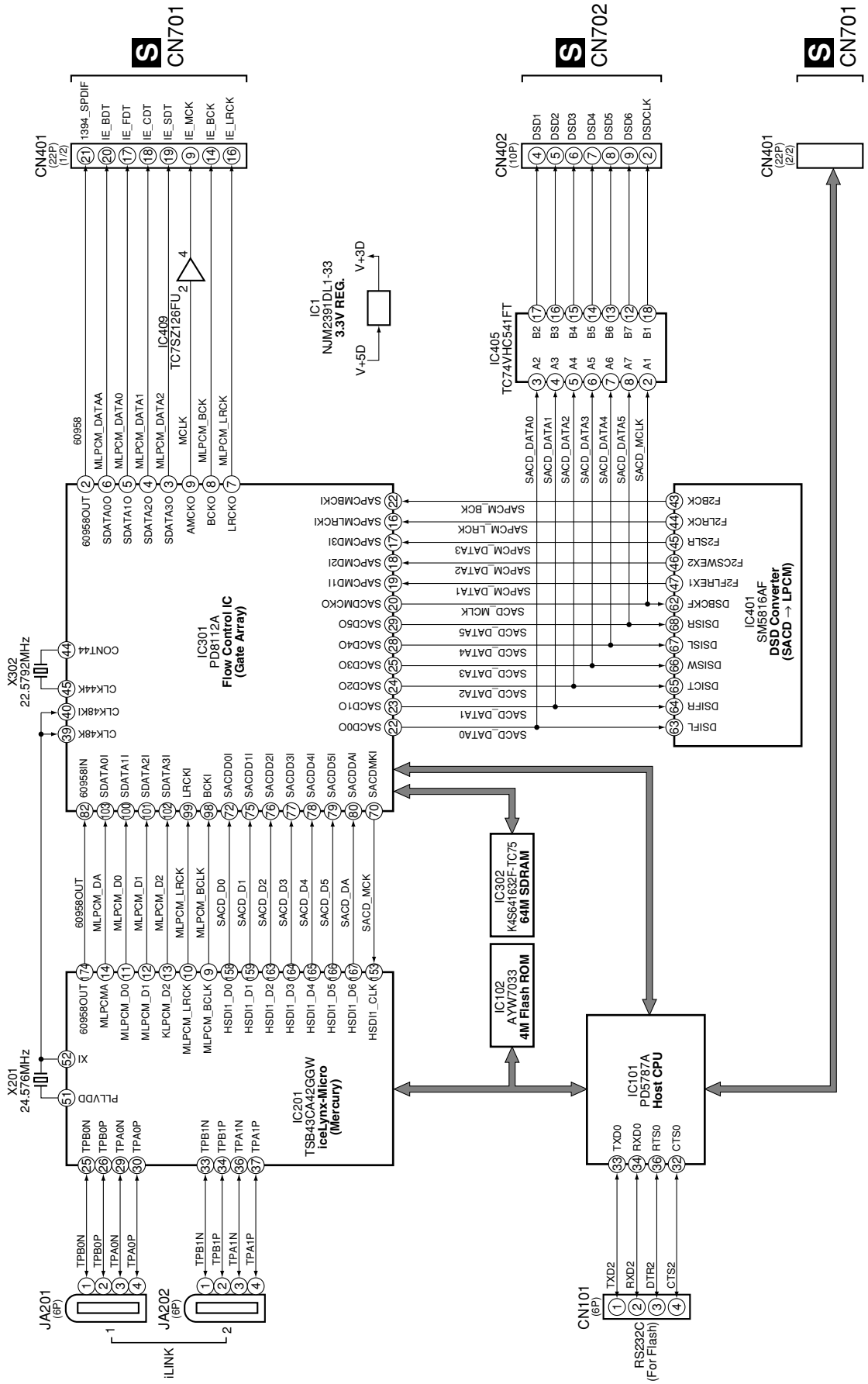
3.1.2 DSP BLOCK DIAGRAM



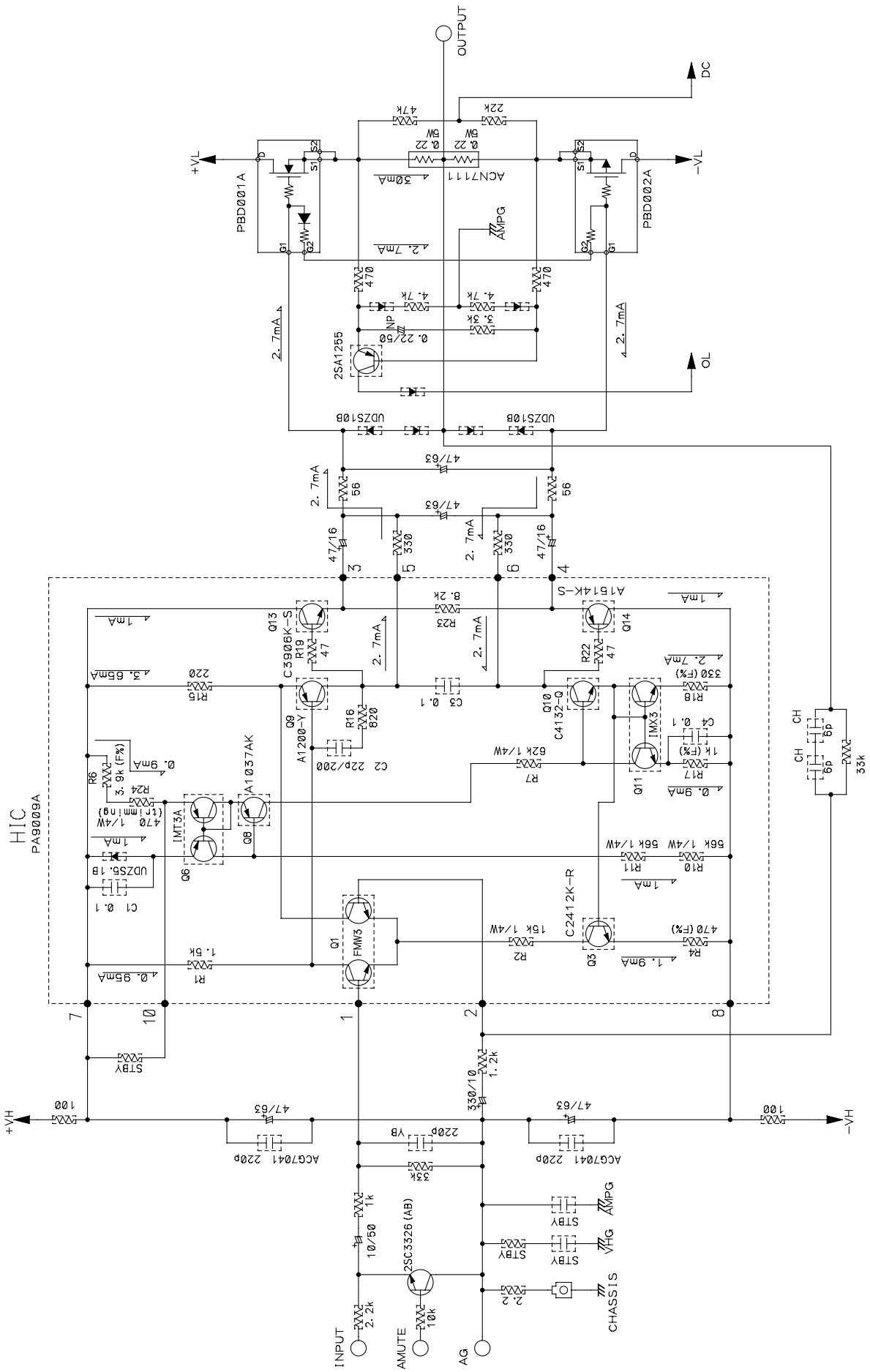

CLOCK LINE
DATA LINE
IC501
AK4383VT
IC601
NJM4565MD
LPF AMP
IC681
NJM4565MD
MIX AMP
Q682
2SK208
SW
Q681
2SK208
SW
IC521 AK4383VT
IC621
NJM4565MD
LPF AMP
IC503
TC7SH04FU
BUFFER
CN601
(21P)
IC451
IS61LV6416-12T
SRAM
IC471
IS63LV1024-12T
PPROM
IC541 AK4383VT
IC641
NJM4565MD
LPF AMP
IC561 AK4382AVT
IC661
NJM4565MD
LPF AMP
IC401
DSPC56367PV150
PPP
DSP2
CN301
MCLK
BICK
LRCK
SDTI
DSDL
DSDR
DCLK
DA
OUT+
OUT−
FL
FR
SW
C
SL
SR
SBL
SBR
SS
DD
G
FLO
FRO
SWO
CO
SLO
SRO
SBLO
SBRO
DA3
DA2
DA1
DA0

3.1.3 1394 BLOCK DIAGRAM

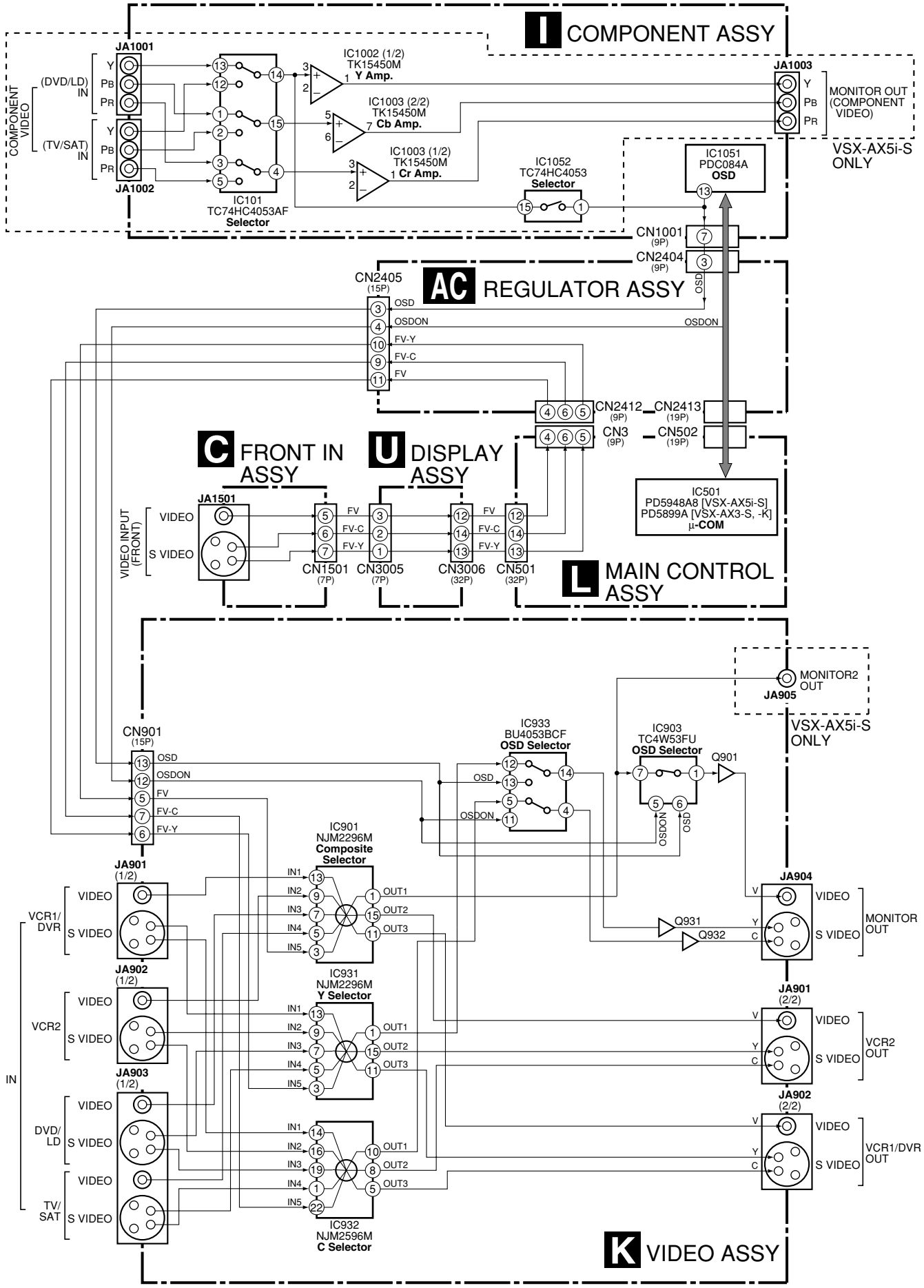
T 1394 ASSY



3.1.4 POWER AMP BLOCK DIAGRAM



3.1.5 VIDEO BLOCK DIAGRAM



A

B

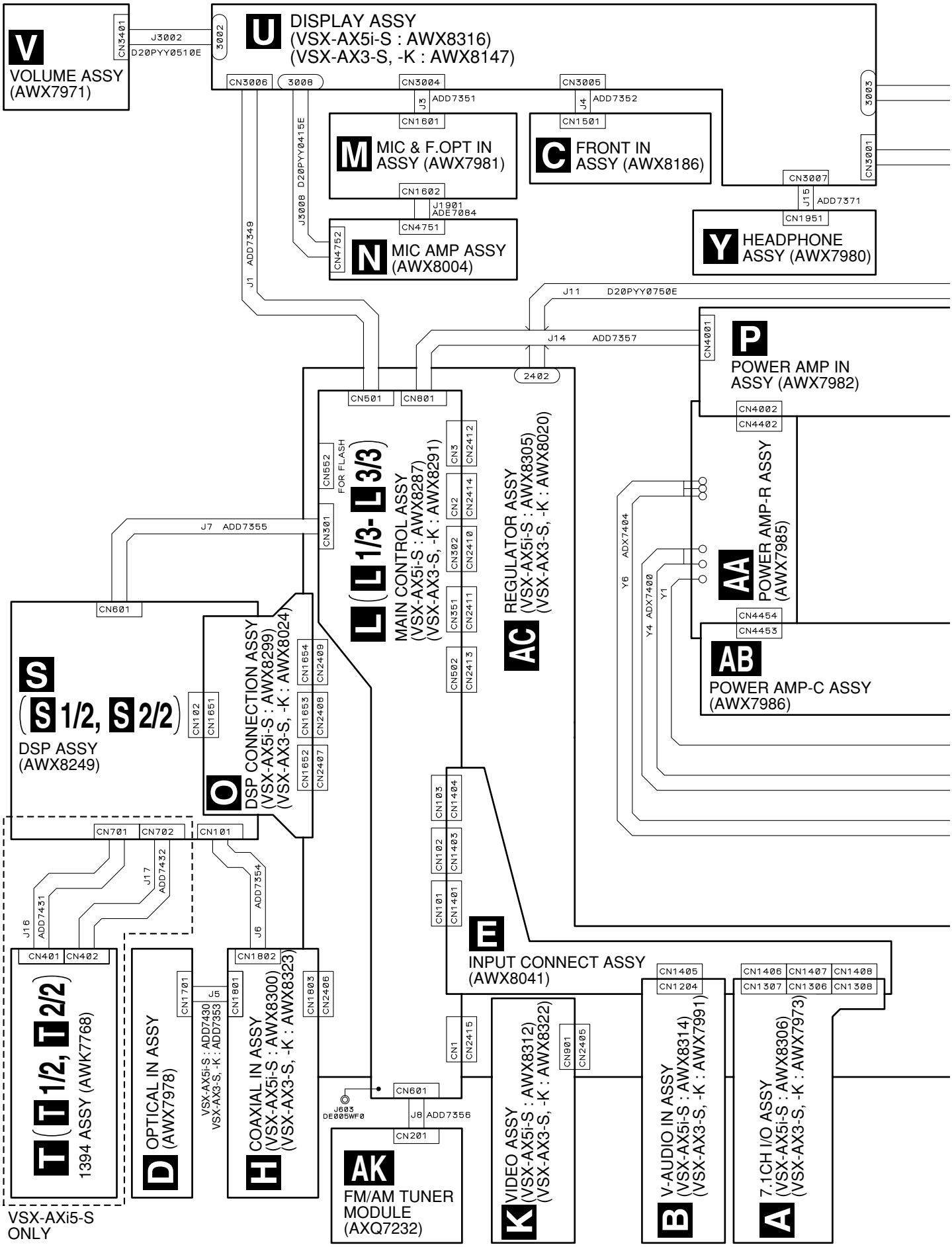
C

D

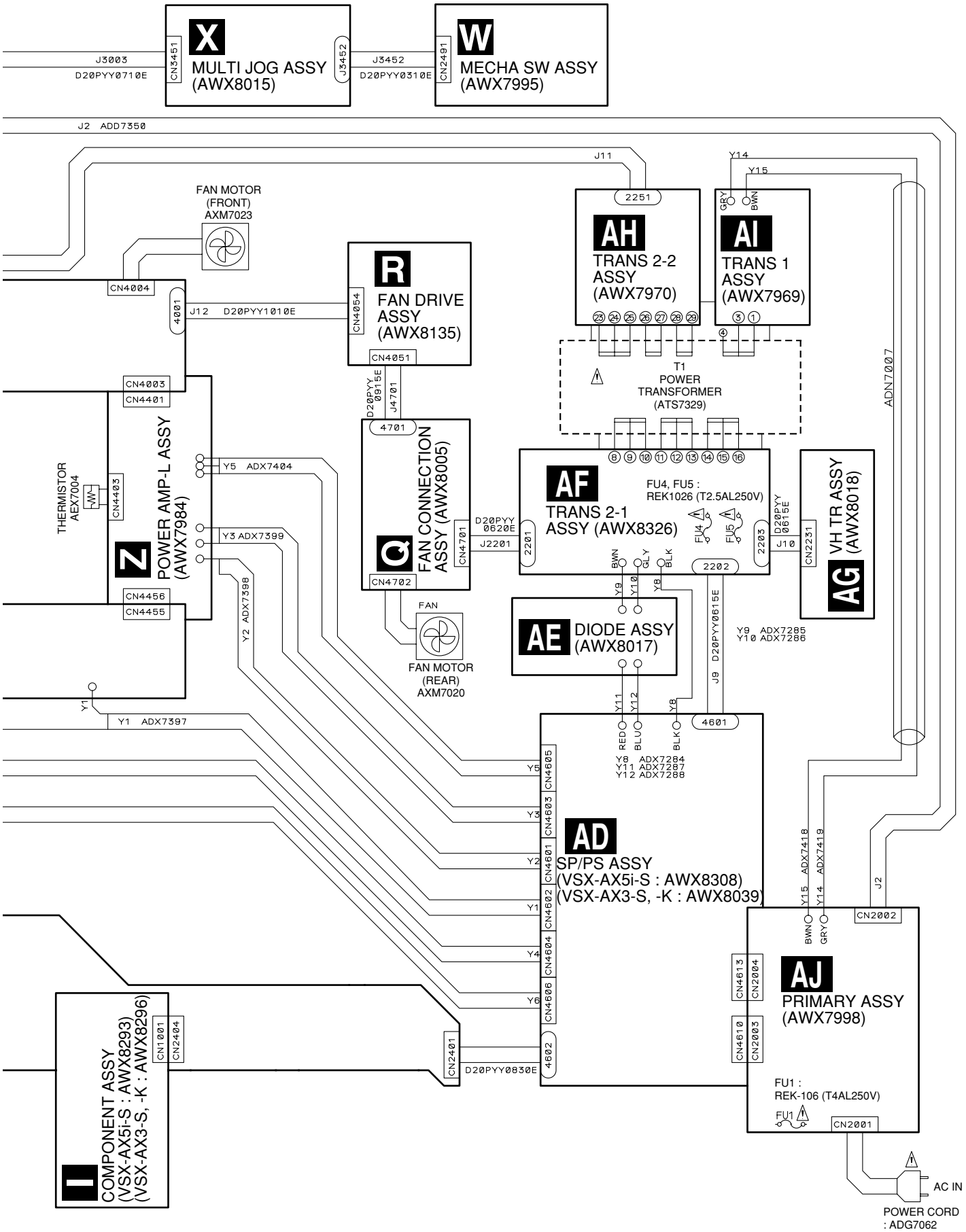
E

F

3.2 OVERALL WIRING DIAGRAM



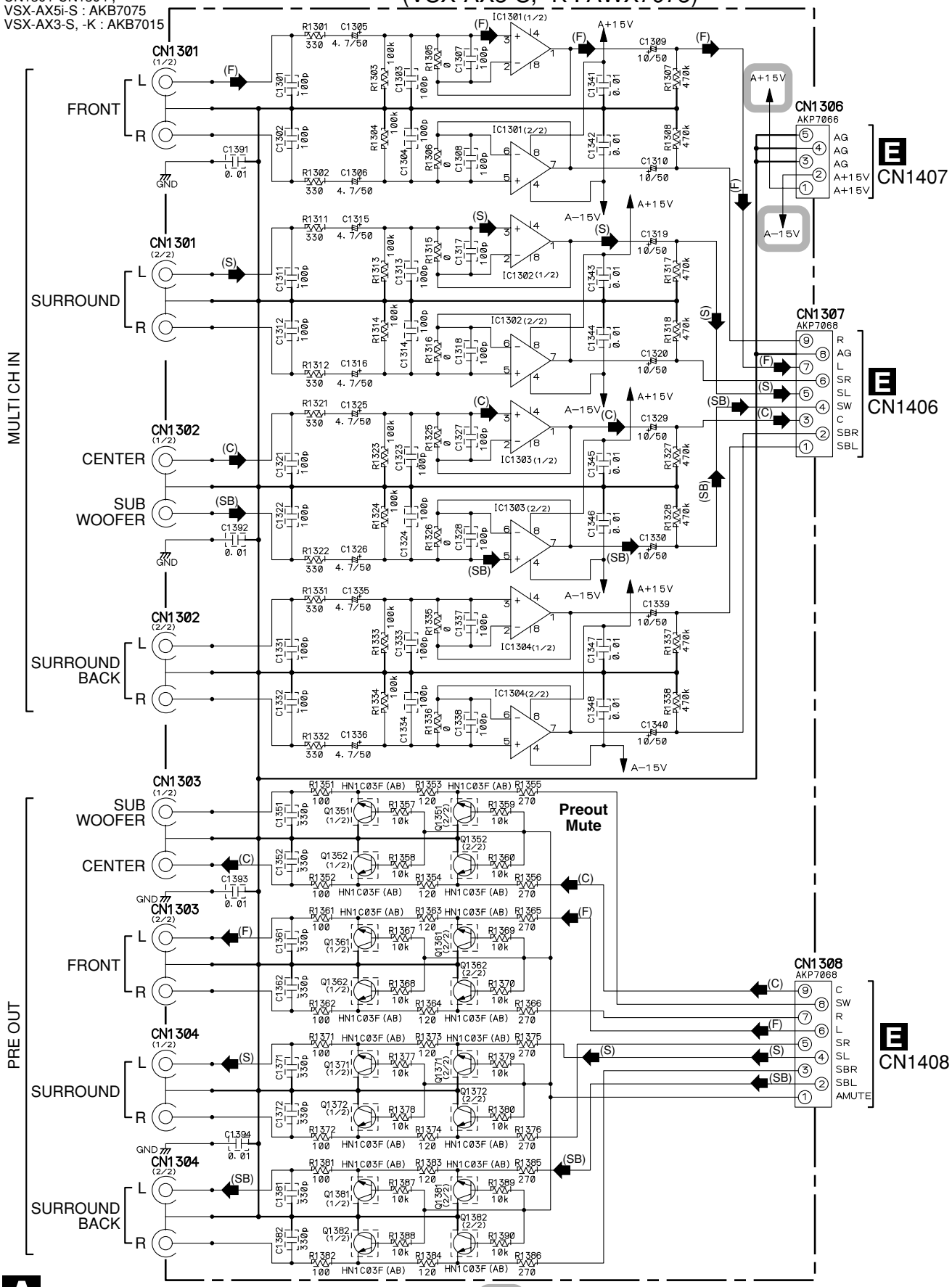
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



3.3 7.1 CH I/O, V-AUDIO, FRONT IN and OPTICAL IN ASSYS

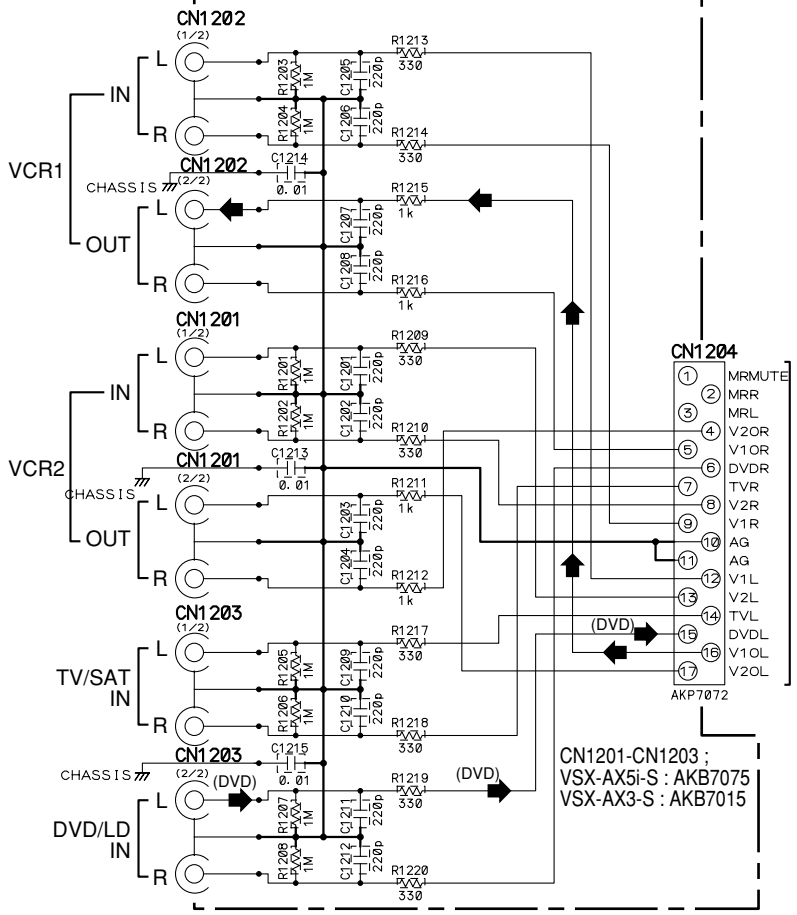
A 7.1 CH I/O ASSY (VSX-AX5i-S : AWX8306) (VSX-AX3-S, -K : AWX7973)

CN1301-CN1304 ;
VSX-AX5i-S : AKB7075
VSX-AX3-S, -K : AKB7015



: The power supply is shown with the marked box.

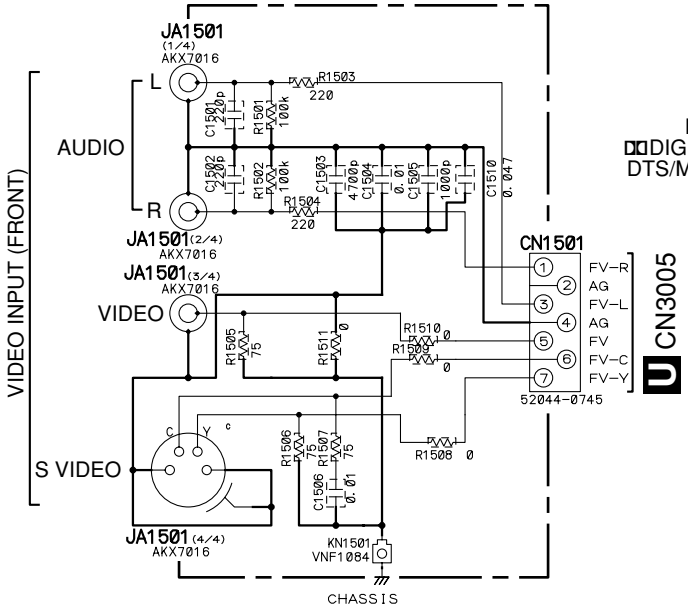
B V-AUDIO ASSY
(VSX-AX5i-S : AWX8314)
(VSX-AX3-S, -K : AWX7991)



E CN1405

: AUDIO SIGNAL ROUTE (Lch)
(DVD) : AUDIO SIGNAL ROUTE (DVD Lch)
(F) : AUDIO SIGNAL ROUTE (FRONT Lch)
(S) : AUDIO SIGNAL ROUTE (SURROUND Lch)
(SB) : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)
(C) : AUDIO SIGNAL ROUTE (CENTER ch)
(D) : AUDIO SIGNAL ROUTE (DIGITAL)

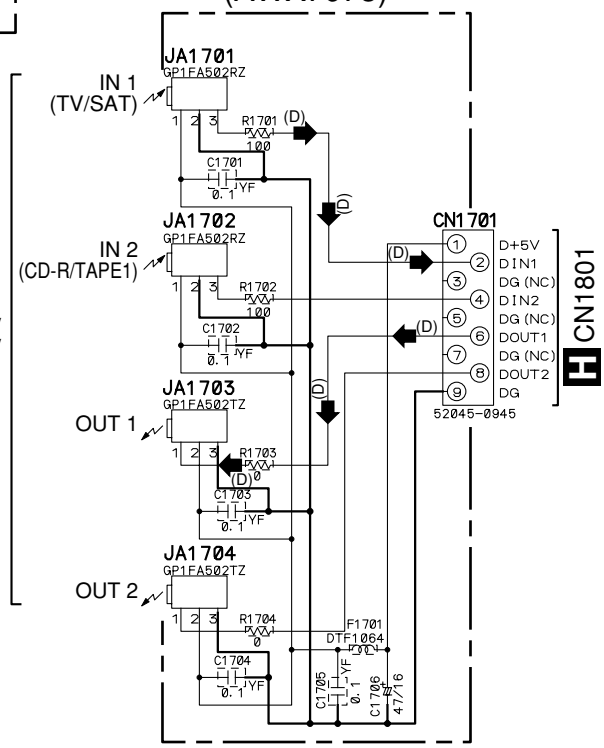
C FRONT IN ASSY (AWX8186)



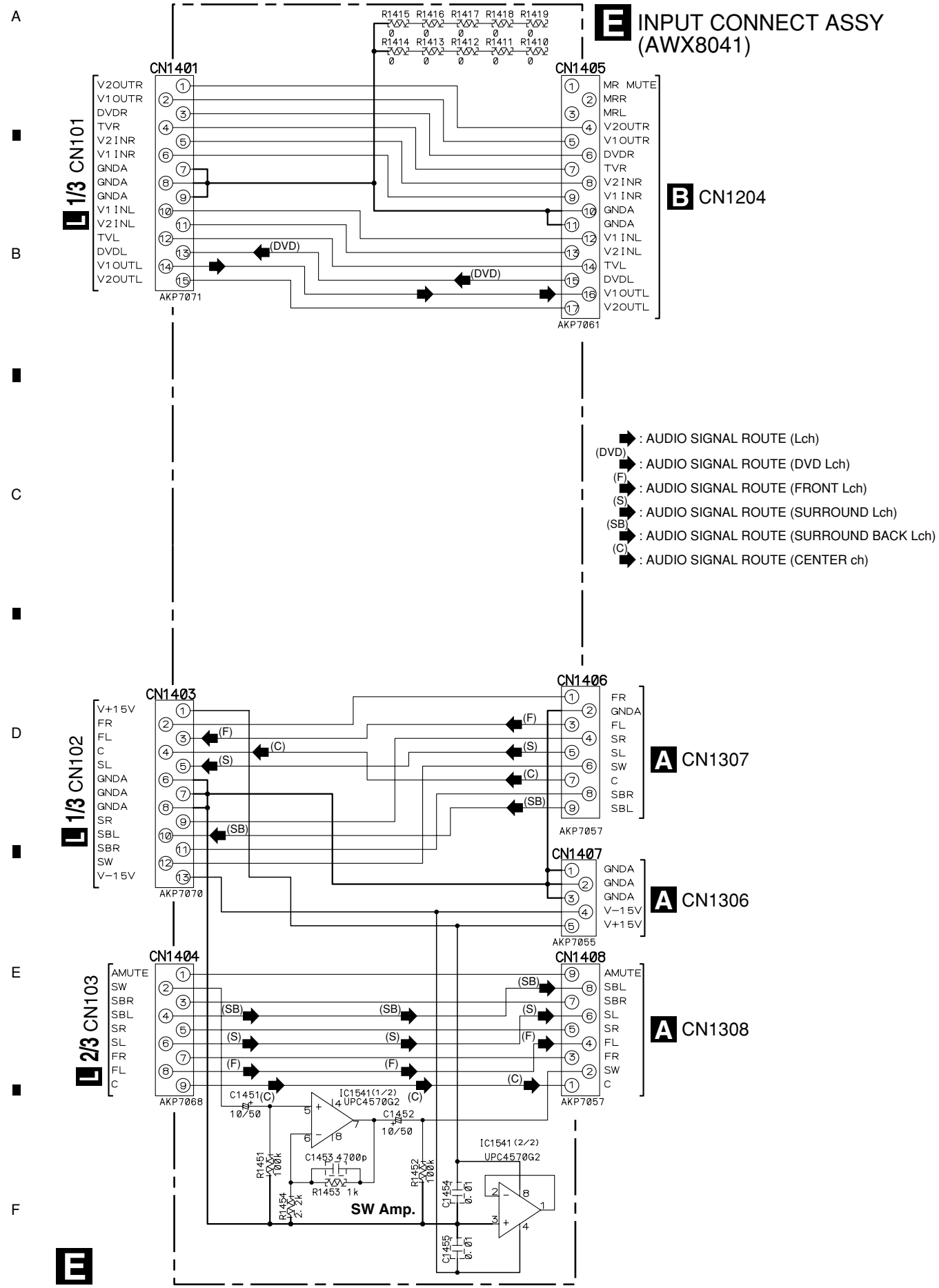
D CN3005

PCM/
DIGITAL/
DTS/MPEG

D OPTICAL IN ASSY
(AWX7978)



3.4 INPUT CONNECT ASSY



A

B

C

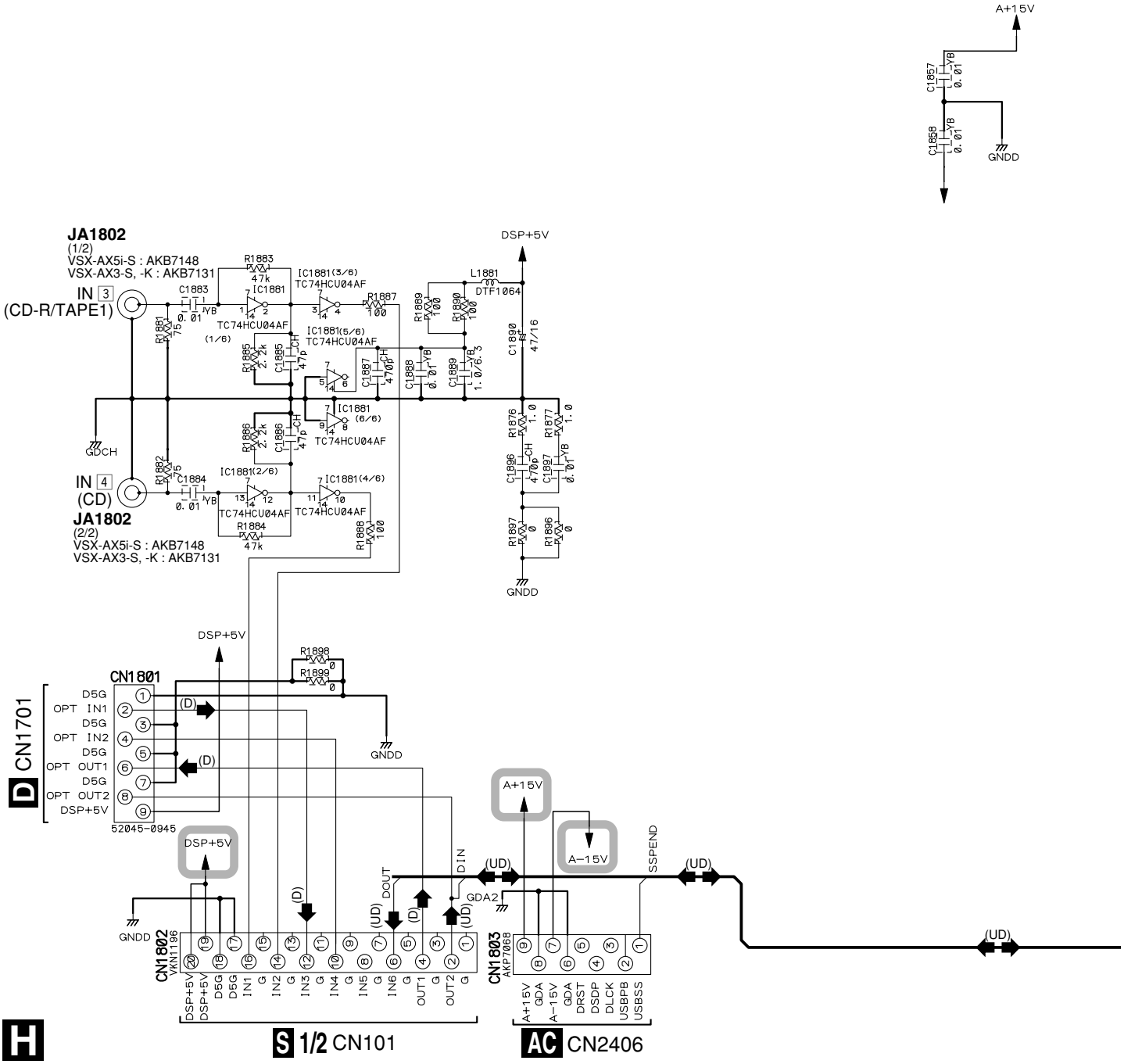
D

E

F

3.5 COAXIAL IN ASSY

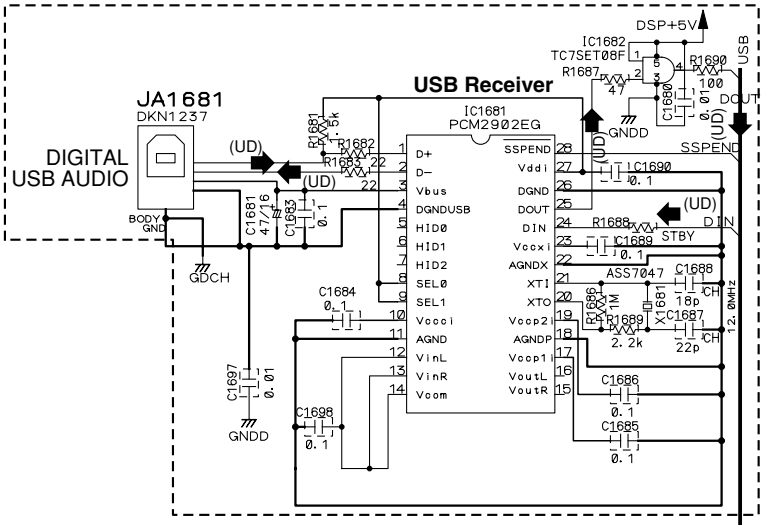
H COAXIAL IN ASSY
(VSX-AX5i-S : AWX8300)
(VSX-AX3-S, -K : AWX8323)



(D) : AUDIO SIGNAL ROUTE (DIGITAL)

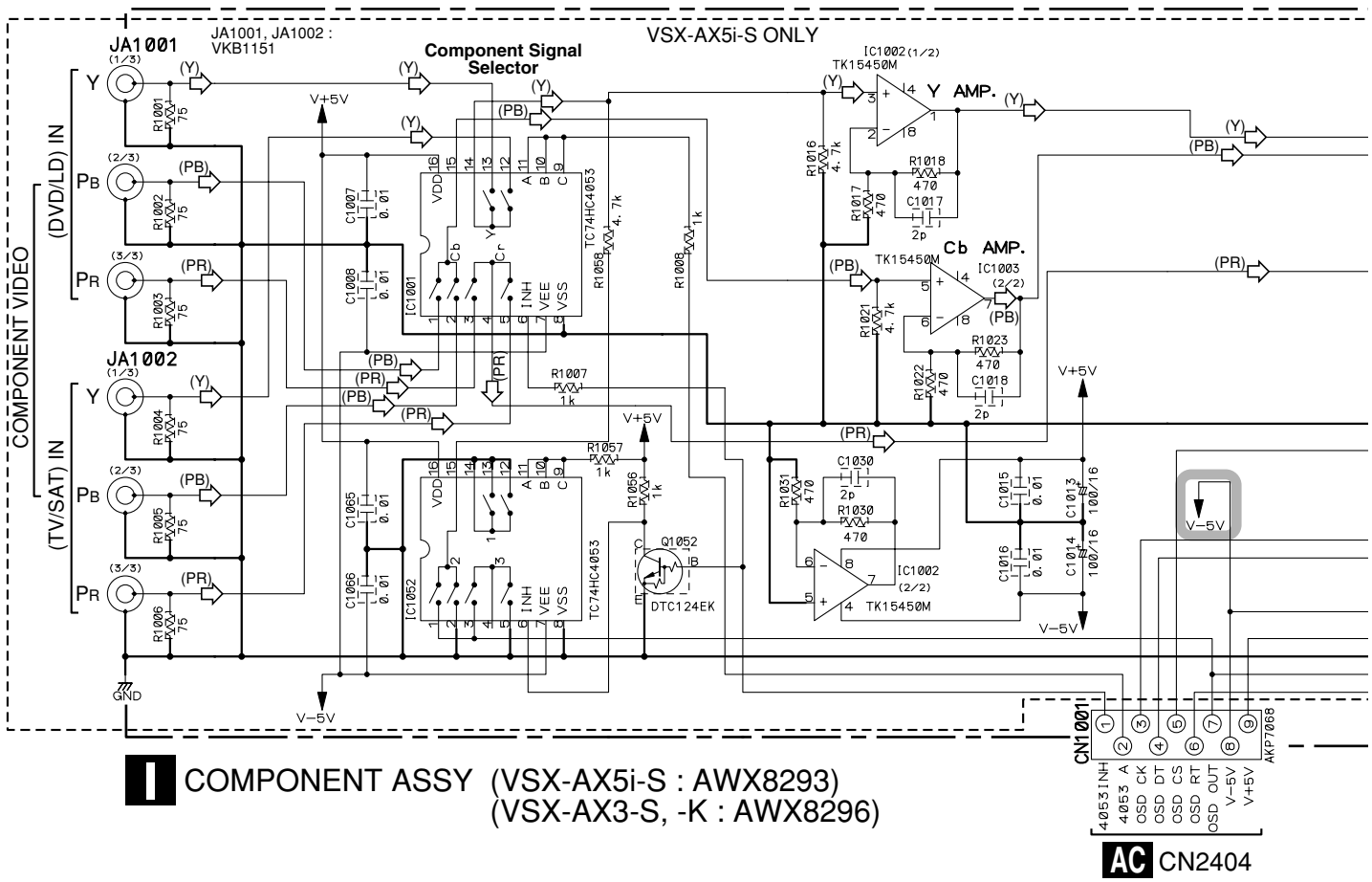
(UD) : AUDIO SIGNAL ROUTE (USB DIGITAL)

VSX-AX5i-S ONLY



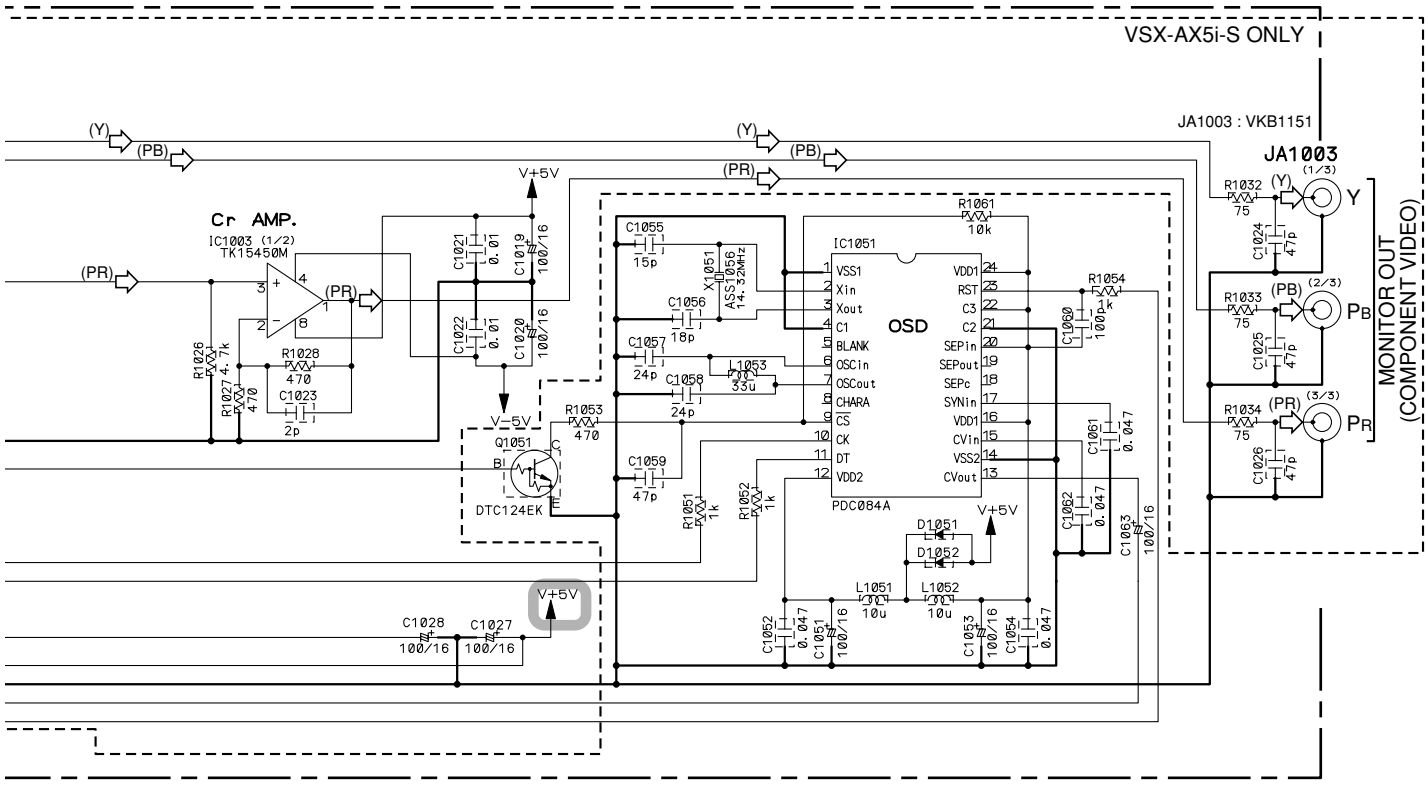
: The power supply is shown with the marked box.

3.6 COMPONENT ASSY



COMPONENT ASSY (VSX-AX5i-S : AWX8293)
(VSX-AX3-S, -K : AWX8296)

AC CN2404



(Y) : VIDEO SIGNAL ROUTE (Y)

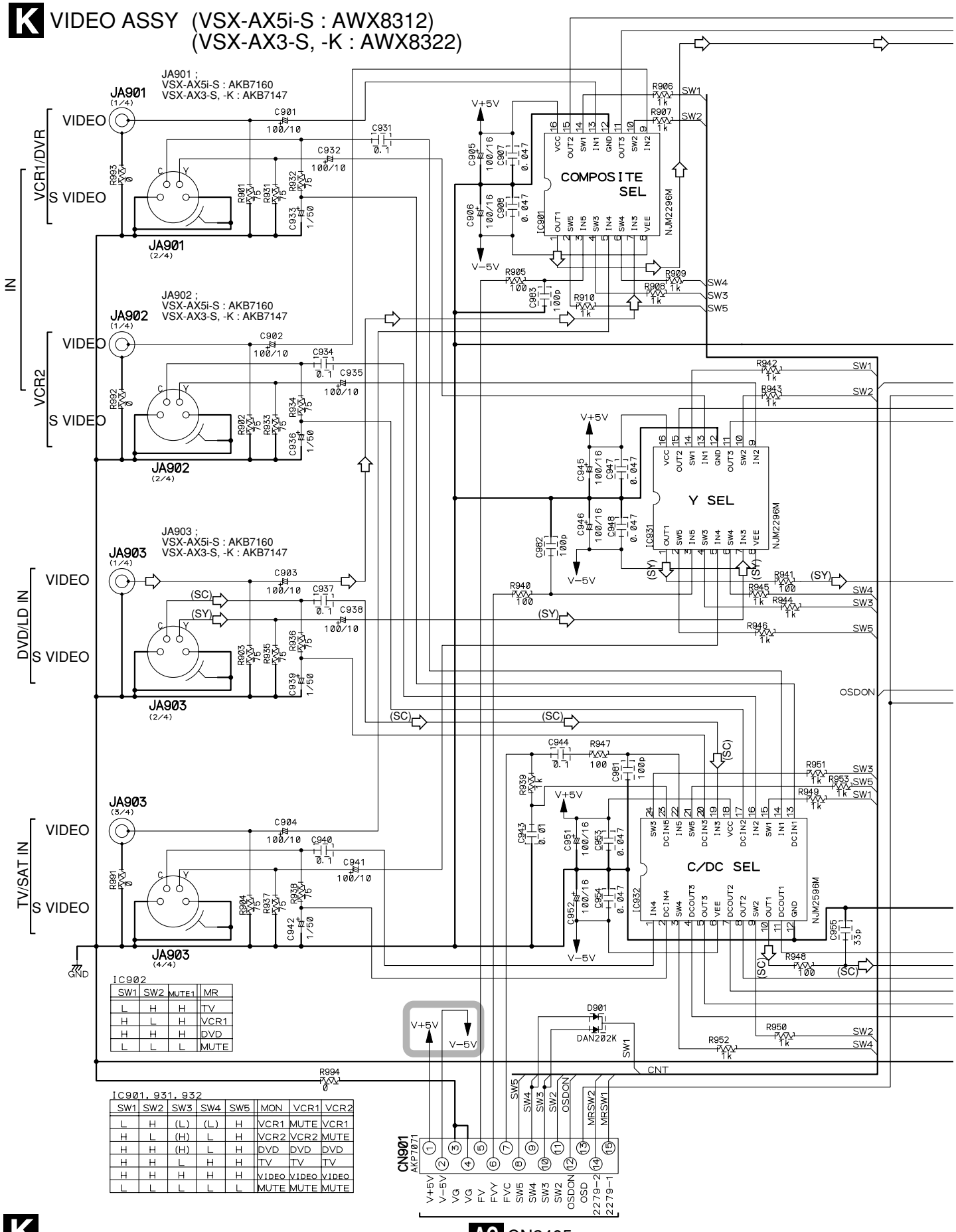
(PB) : VIDEO SIGNAL ROUTE (PB)

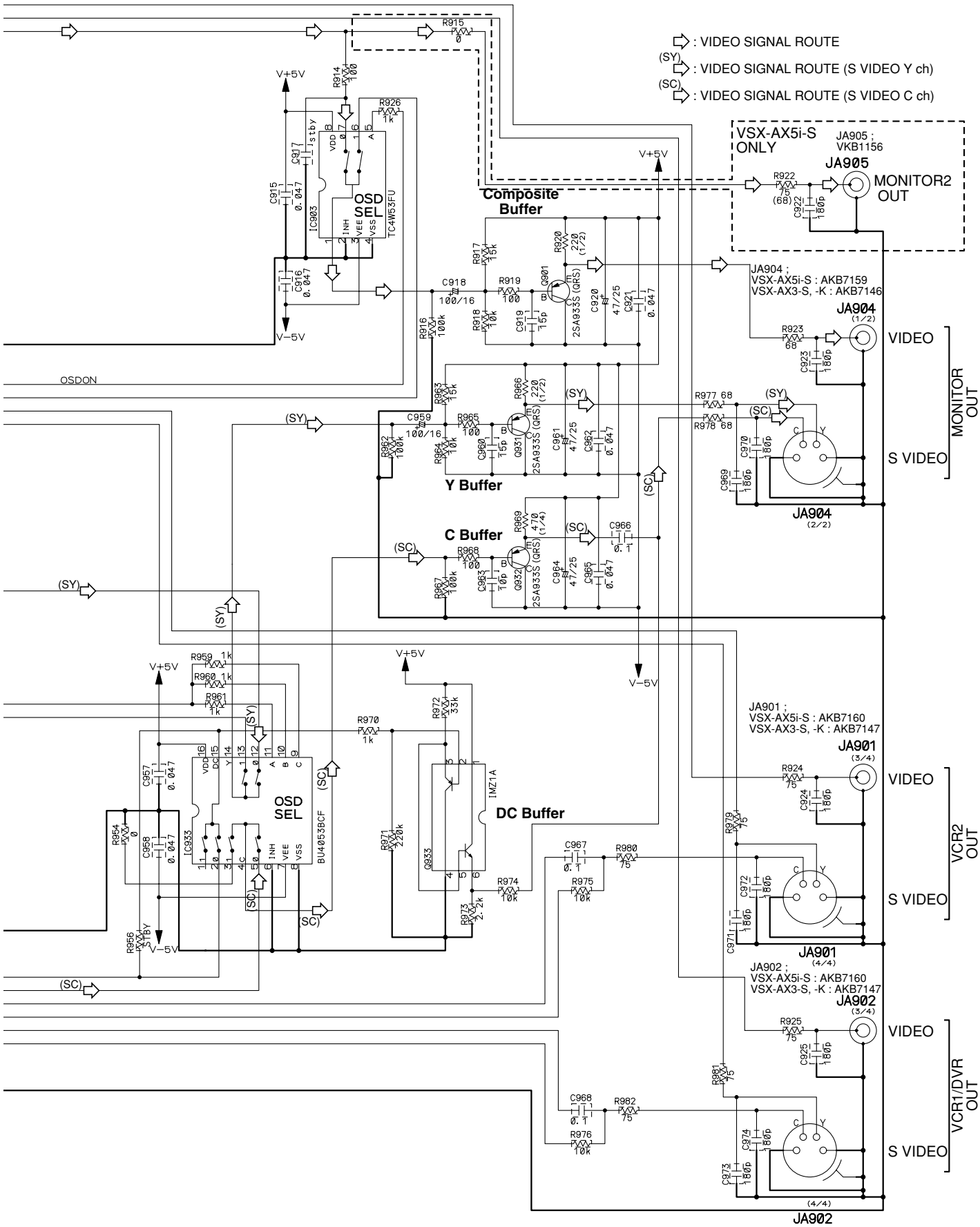
(PR) : VIDEO SIGNAL ROUTE (PR)

: The power supply is shown with the marked box.

3.7 VIDEO ASSY

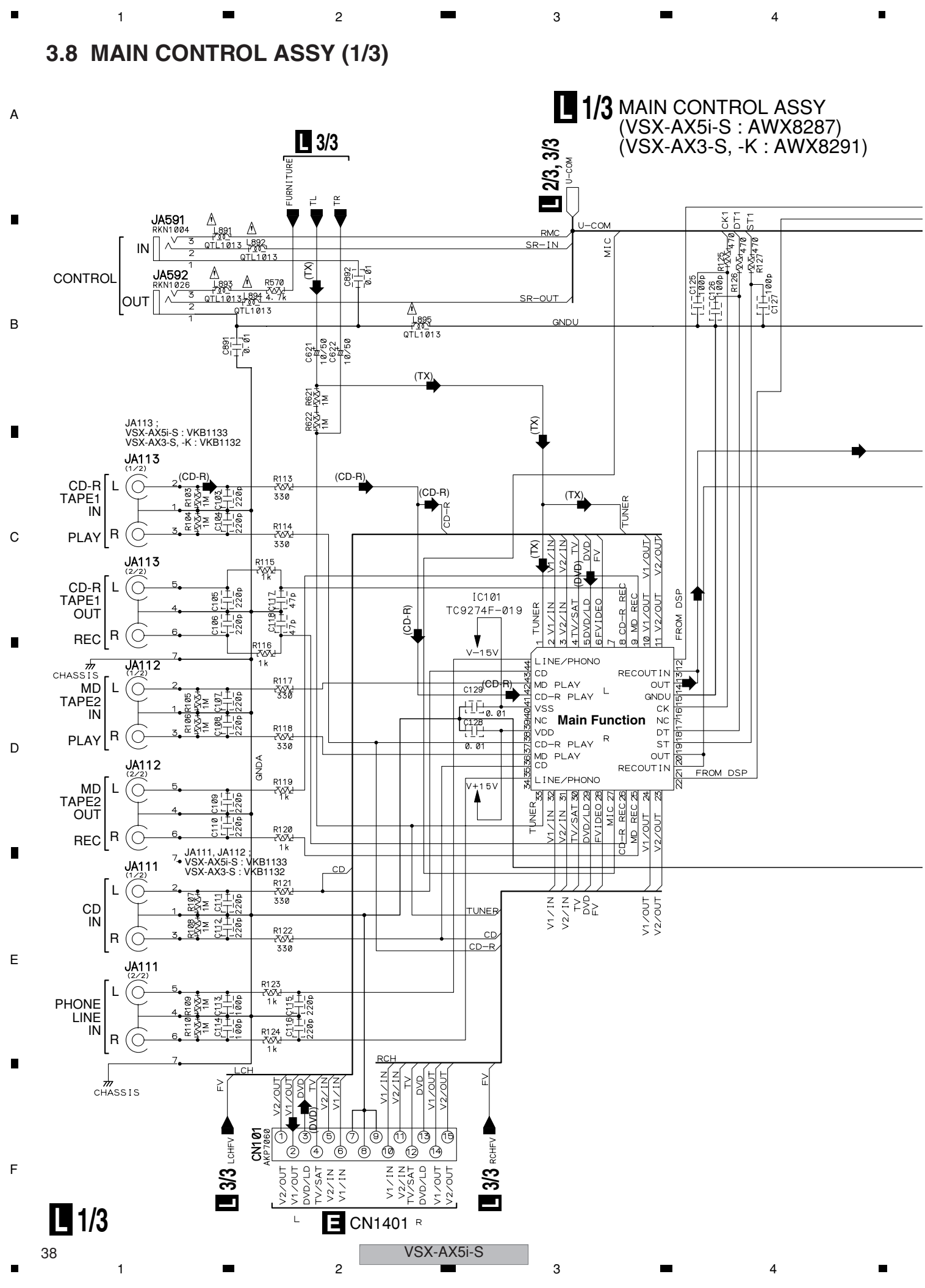
K VIDEO ASSY (VSX-AX5i-S : AWX8312)
(VSX-AX3-S, -K : AWX8322)

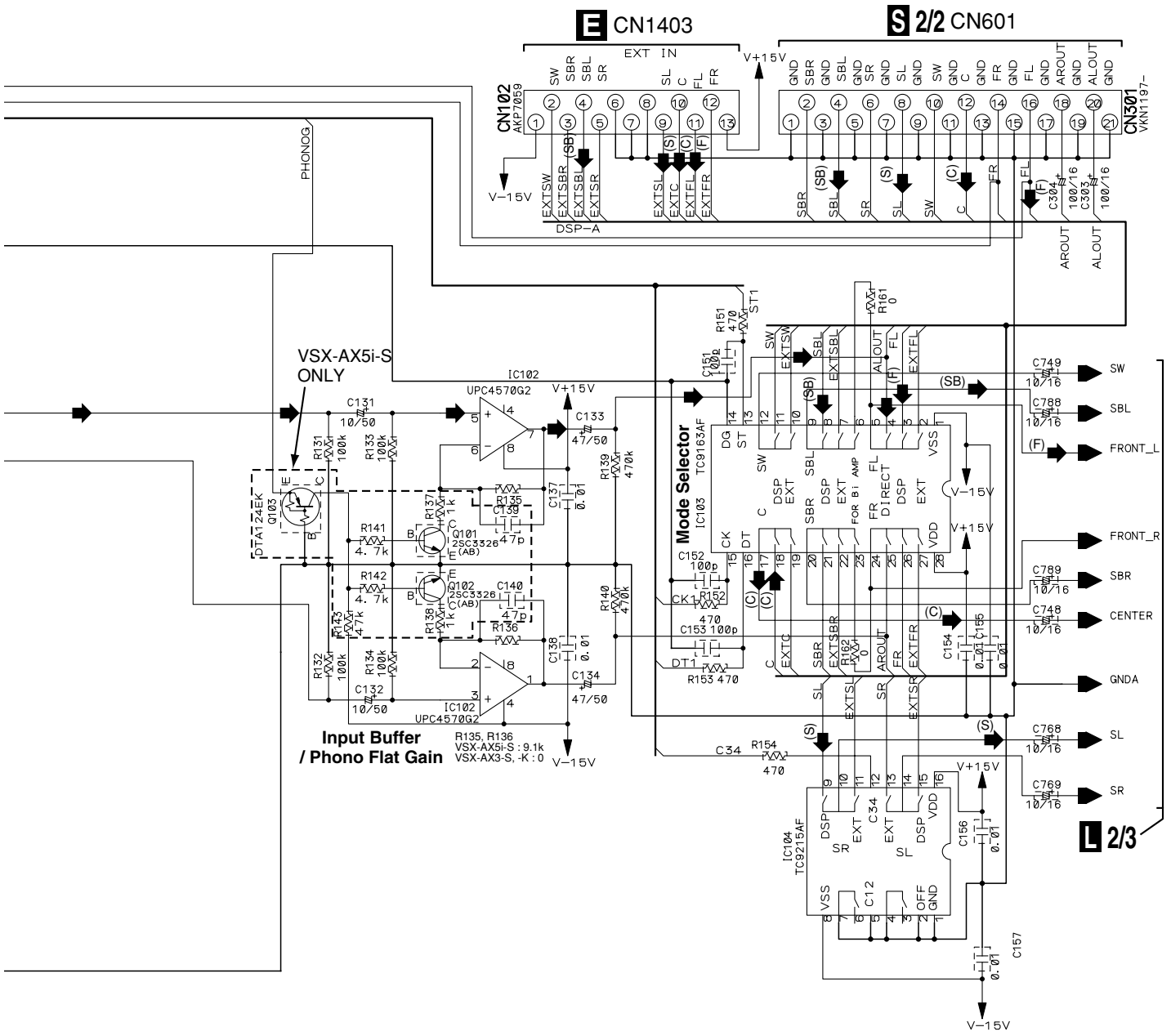




: The power supply is shown with the marked box.

3.8 MAIN CONTROL ASSY (1/3)





➡ : AUDIO SIGNAL ROUTE (Lch)

(CD-R) ➡ : AUDIO SIGNAL ROUTE (CD-R Lch)

(TX) ➡ : AUDIO SIGNAL ROUTE (TUNER Lch)

(DVD) ➡ : AUDIO SIGNAL ROUTE (DVD Lch)

(F) ➡ : AUDIO SIGNAL ROUTE (FRONT Lch)

(S) ➡ : AUDIO SIGNAL ROUTE (SURROUND Lch)

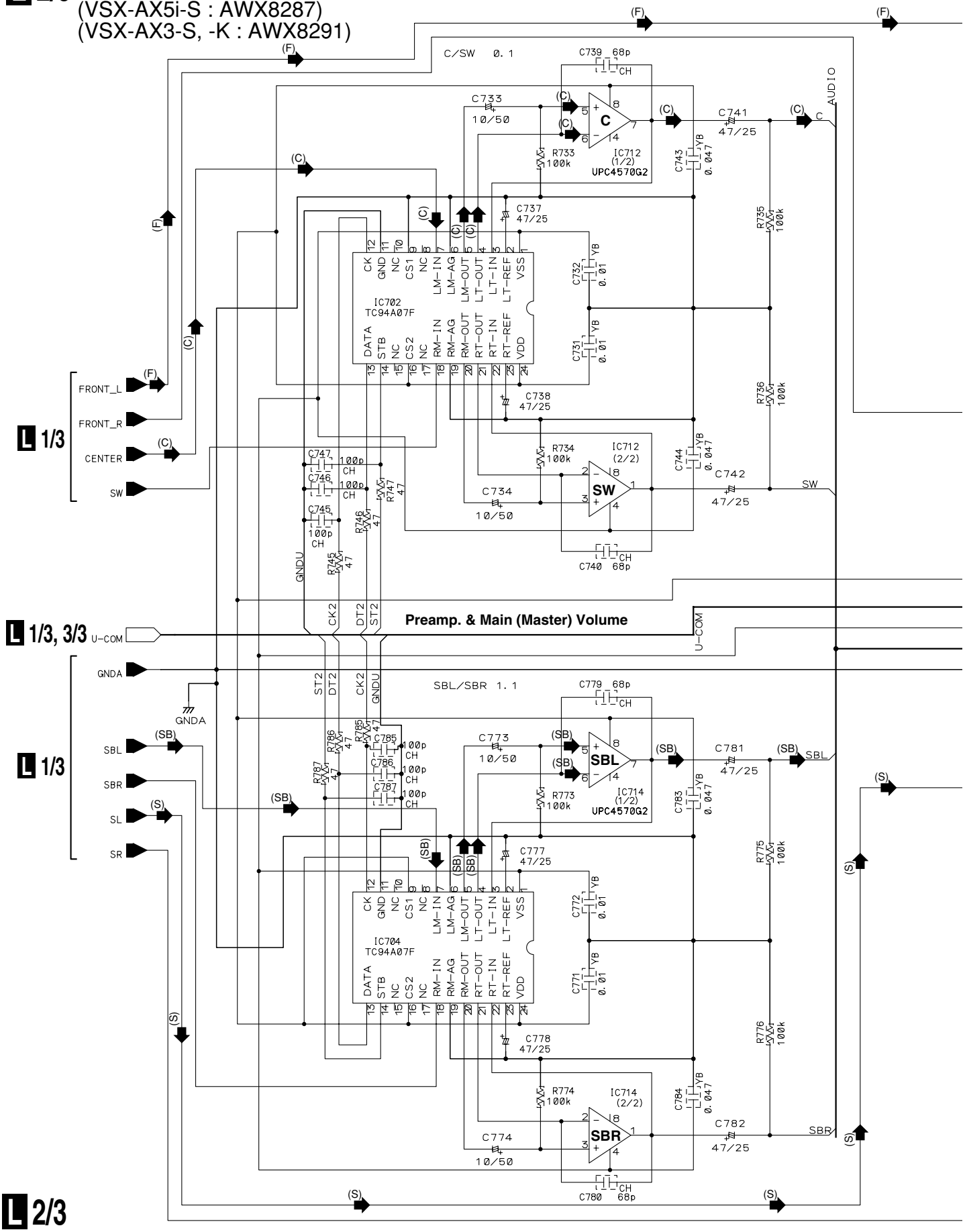
(SB) ➡ : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)

(C) ➡ : AUDIO SIGNAL ROUTE (CENTER ch)

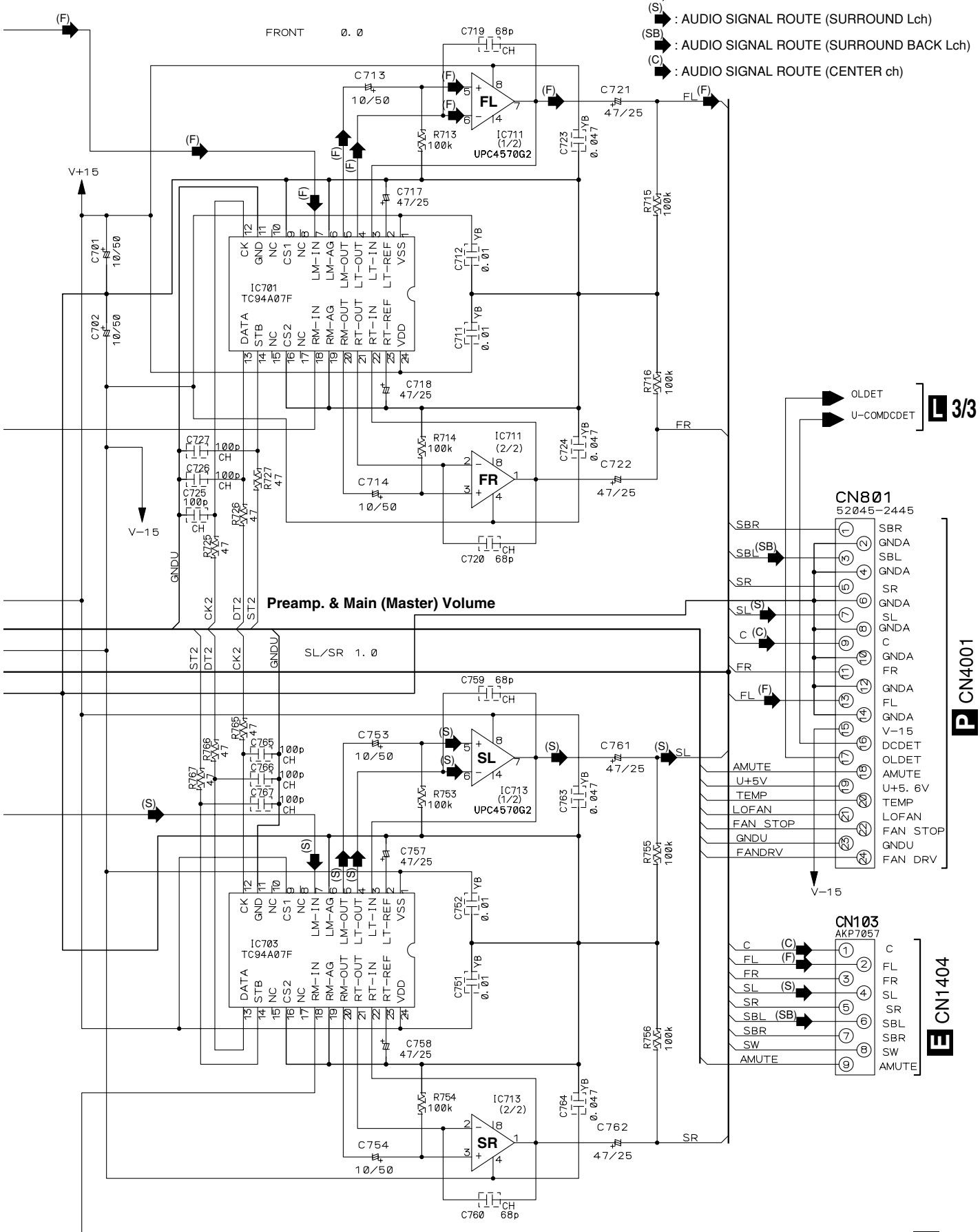
L 1/3

3.9 MAIN CONTROL ASSY (2/3)

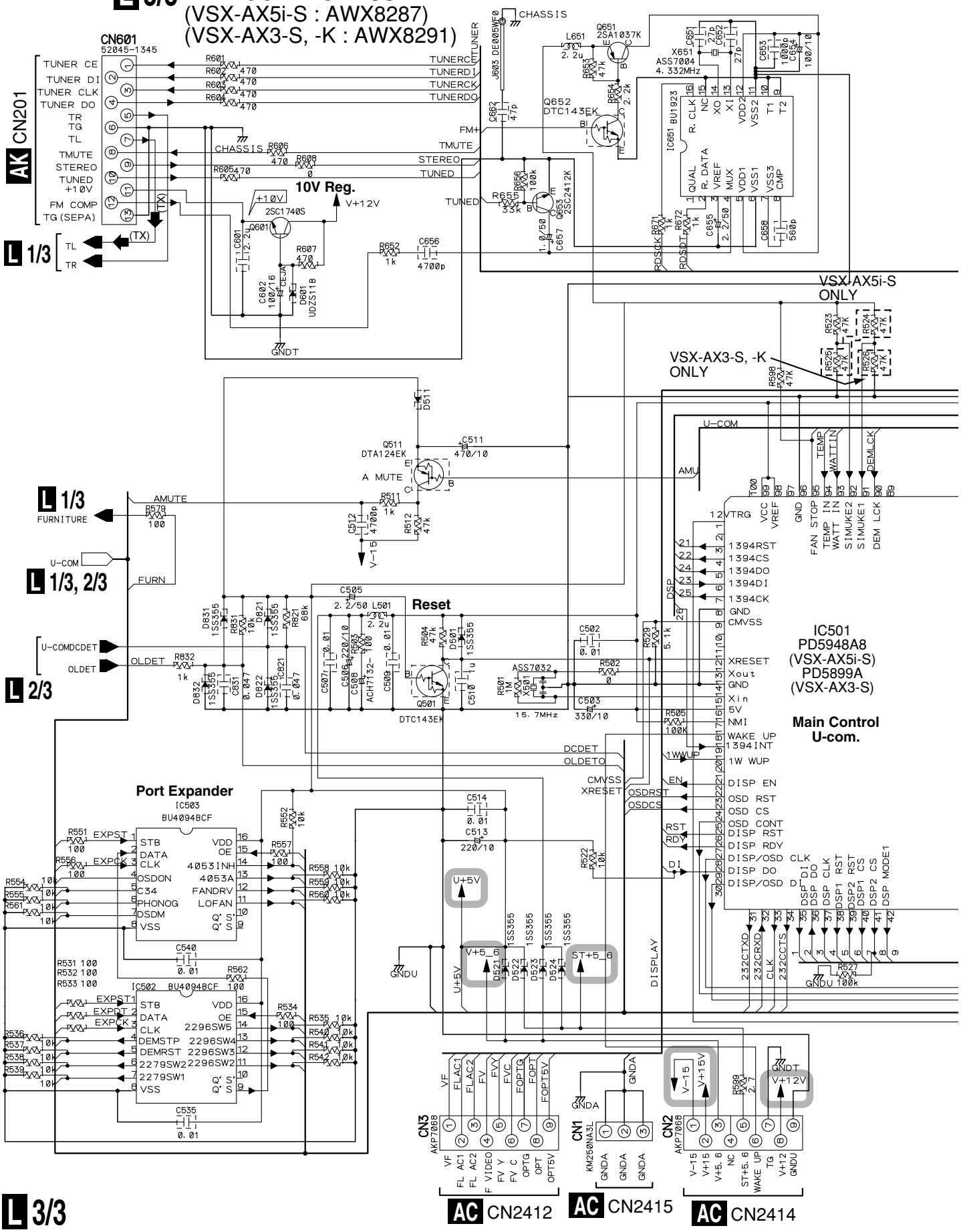
L 2/3 MAIN CONTROL ASSY
(VSX-AX5i-S : AWX8287)
(VSX-AX3-S, -K : AWX8291)

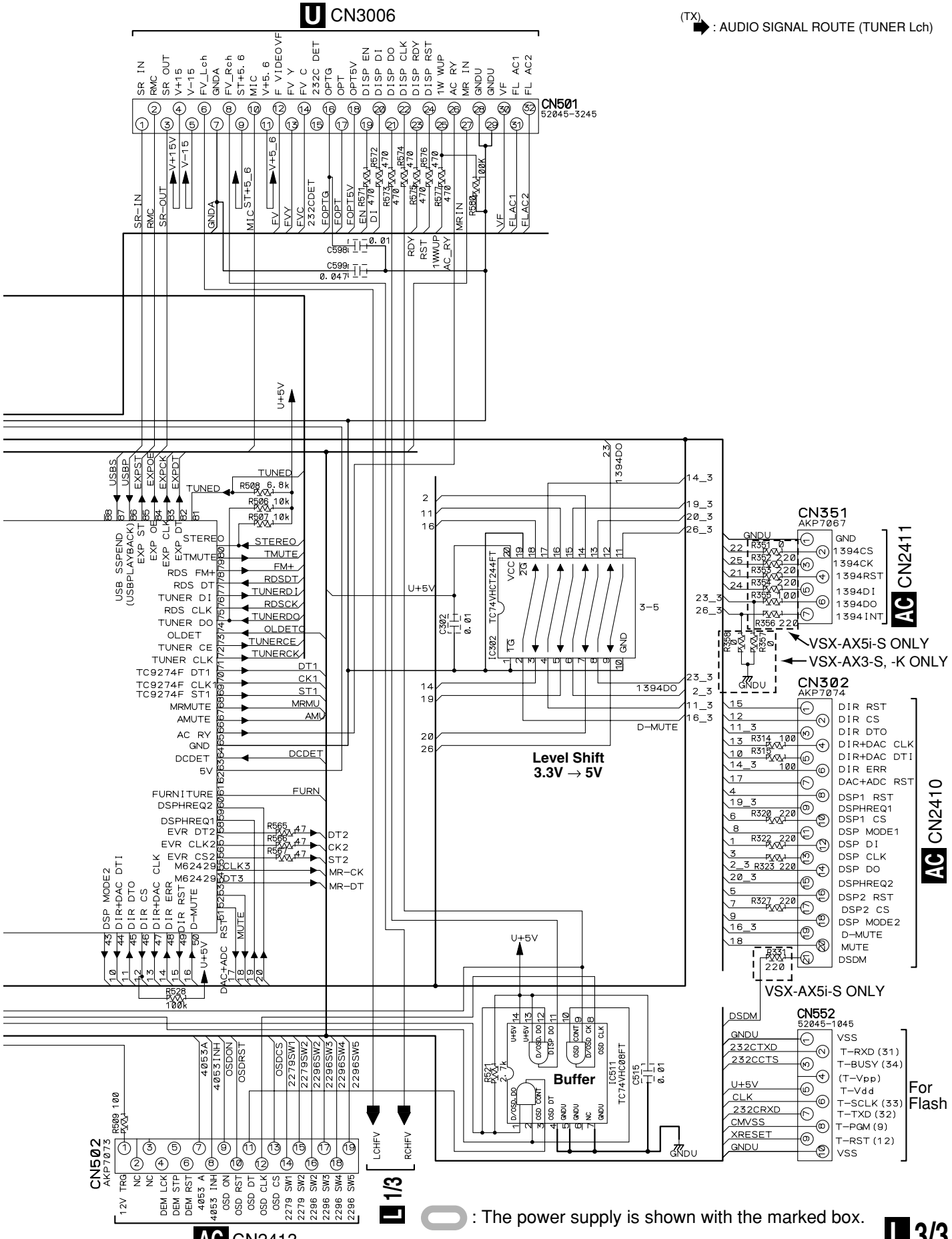


(F) : AUDIO SIGNAL ROUTE (FRONT Lch)
(S) : AUDIO SIGNAL ROUTE (SURROUND Lch)
(SB) : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)
(C) : AUDIO SIGNAL ROUTE (CENTER ch)

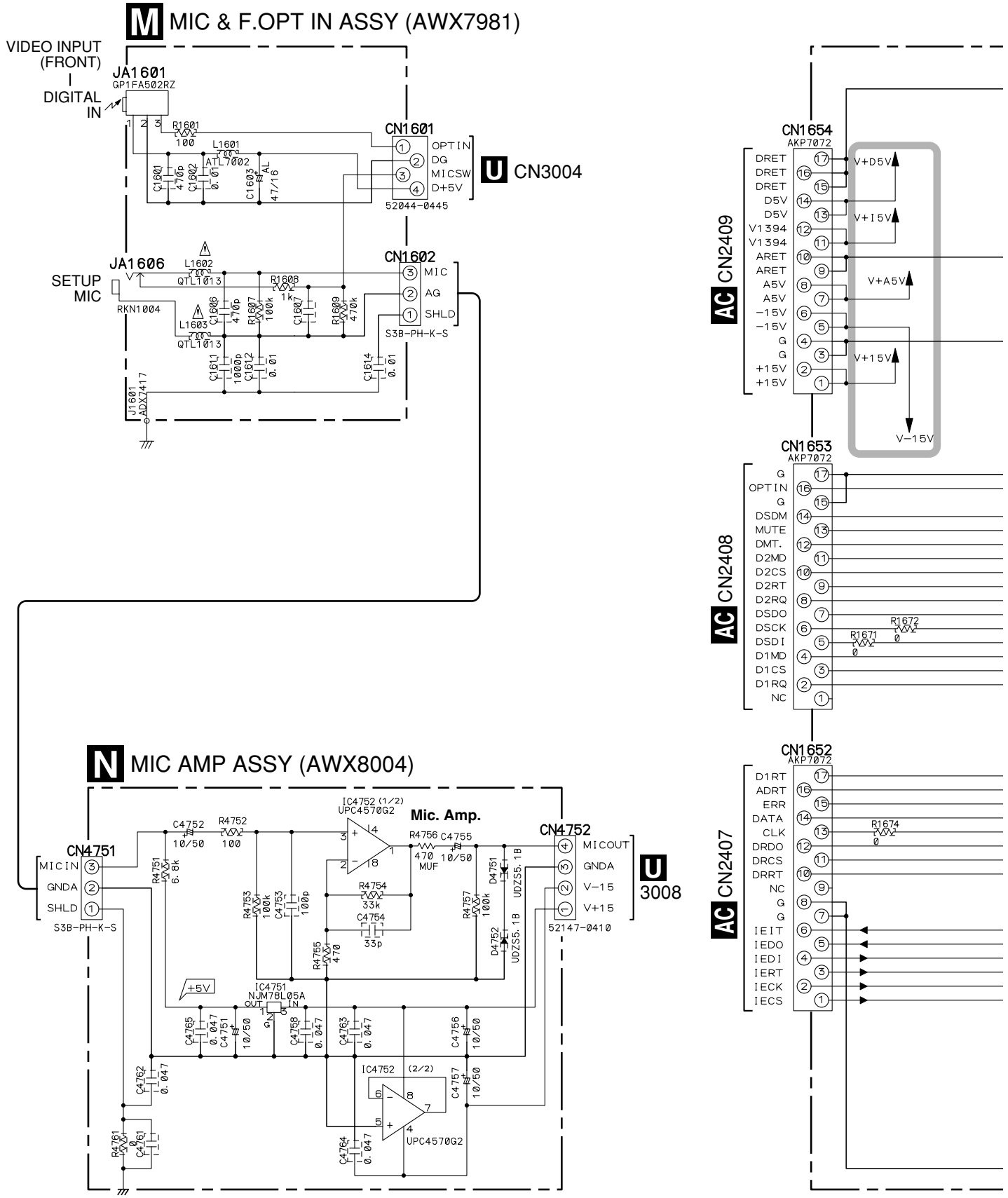


3.10 MAIN CONTROL ASSY (3/3)



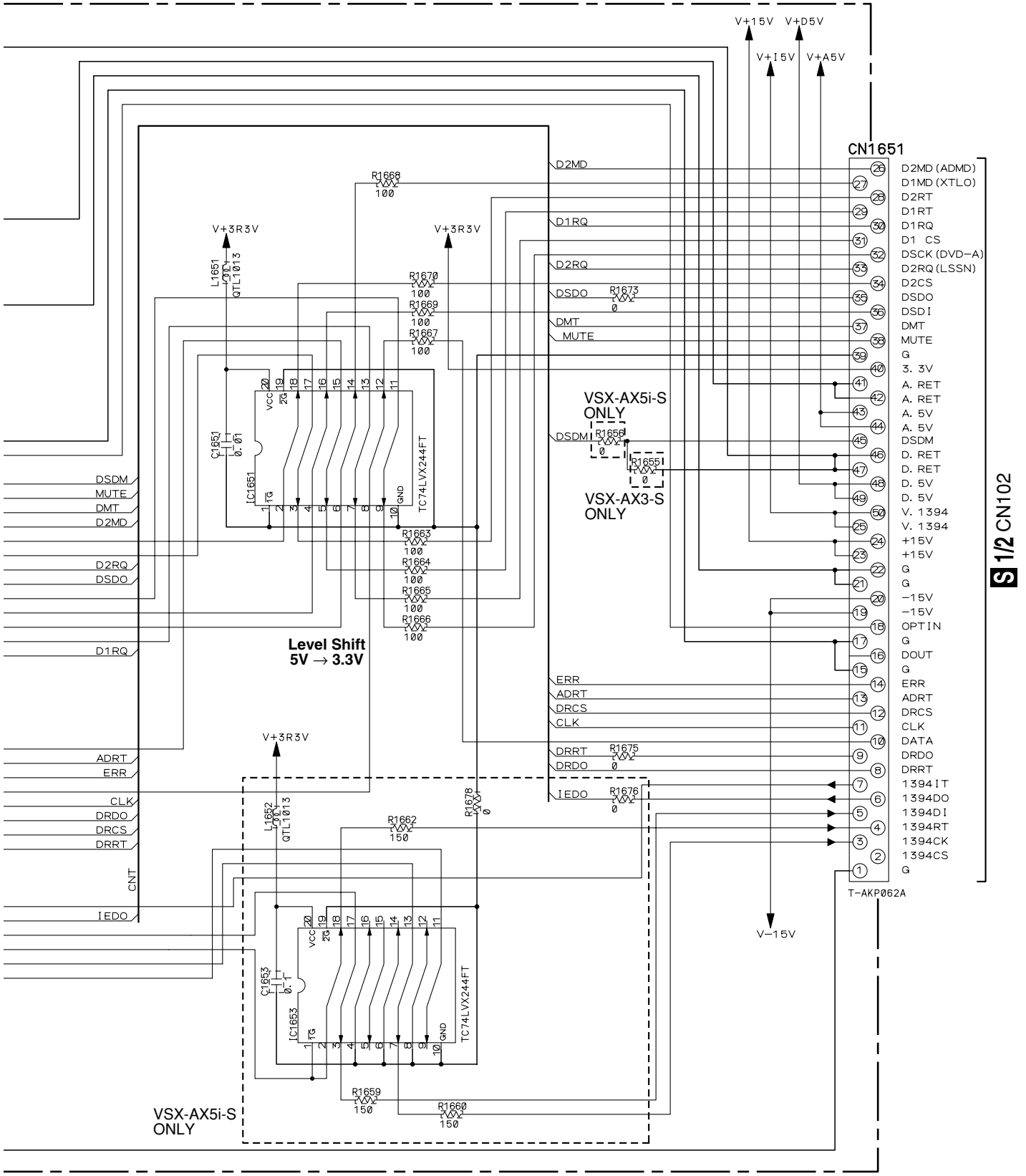

U CN3006
(TX) : AUDIO SIGNAL ROUTE (TUNER Lch)
CN501
52045-3245
CN351
AKP7067
CN2411
AC
VSX-AX5i-S ONLY
VSX-AX3-S, -K ONLY
CN302
AKP7074
CN2410
Level Shift
3.3V → 5V
Buffer
CN552
52045-1045
For Flash
CN502
AKP7073
CN2413
L 1/3
L 3/3
: The power supply is shown with the marked box.

3.11 MIC & F.OPT IN, MIC AMP and DSP CONNECTION ASSYS



M N O

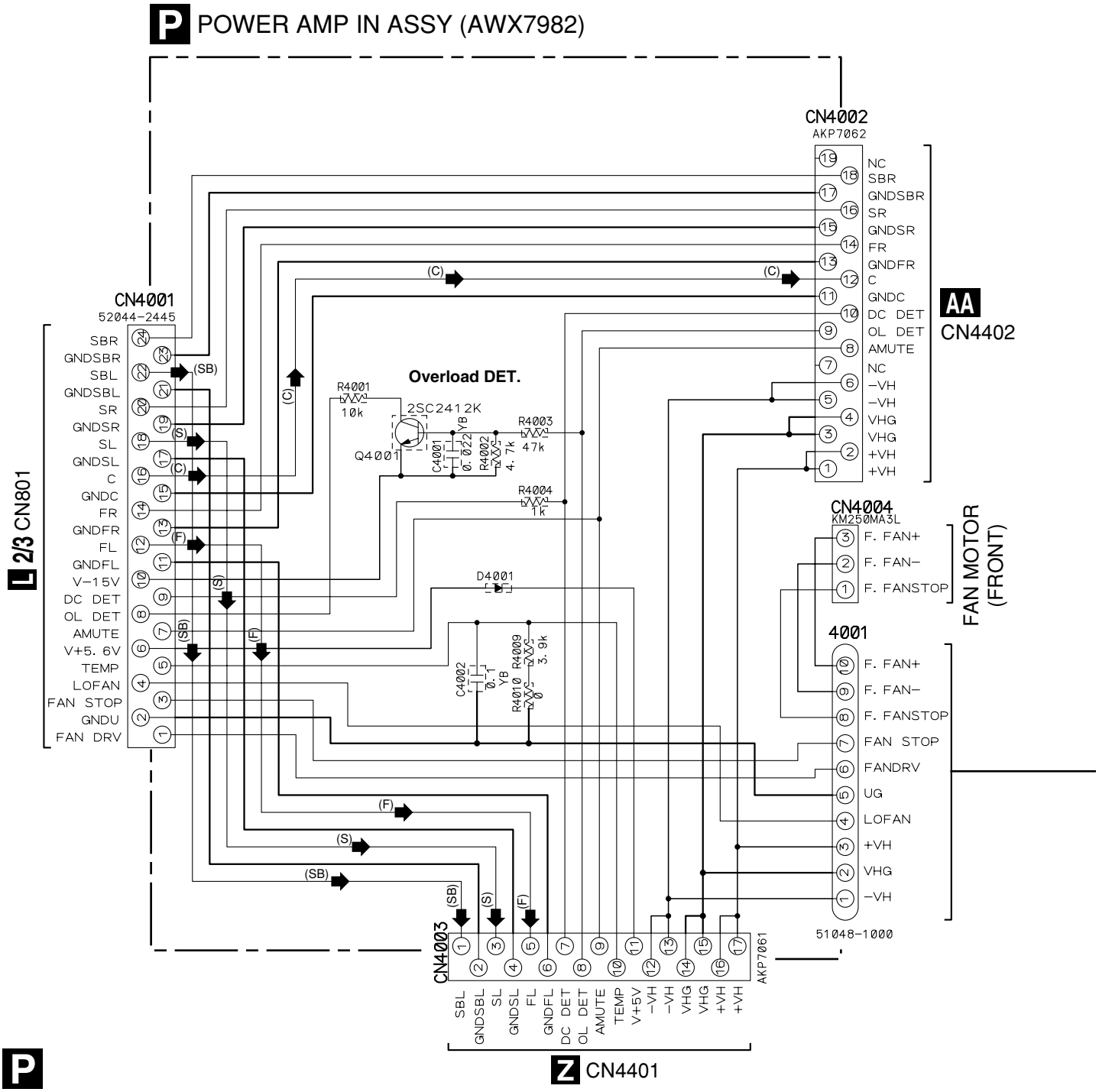
O DSP CONNECTION ASSY (VSX-AX5i-S : AWX8299)
(VSX-AX3-S, -K : AWX8024)



: The power supply is shown with the marked box.

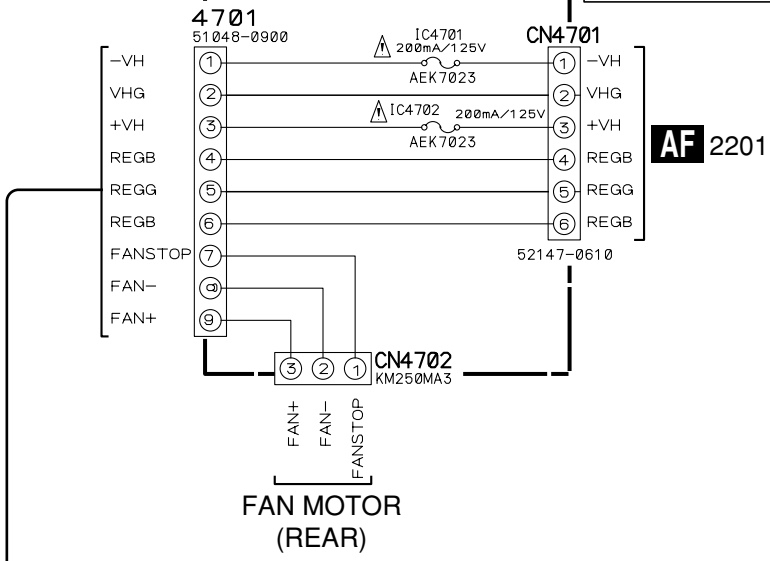
3.12 POWER AMP IN, FAN CONNECTION and FAN DRIVE ASSYS

(F) : AUDIO SIGNAL ROUTE (FRONT Lch)
(S) : AUDIO SIGNAL ROUTE (SURROUND Lch)
(SB) : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)
(C) : AUDIO SIGNAL ROUTE (CENTER ch)



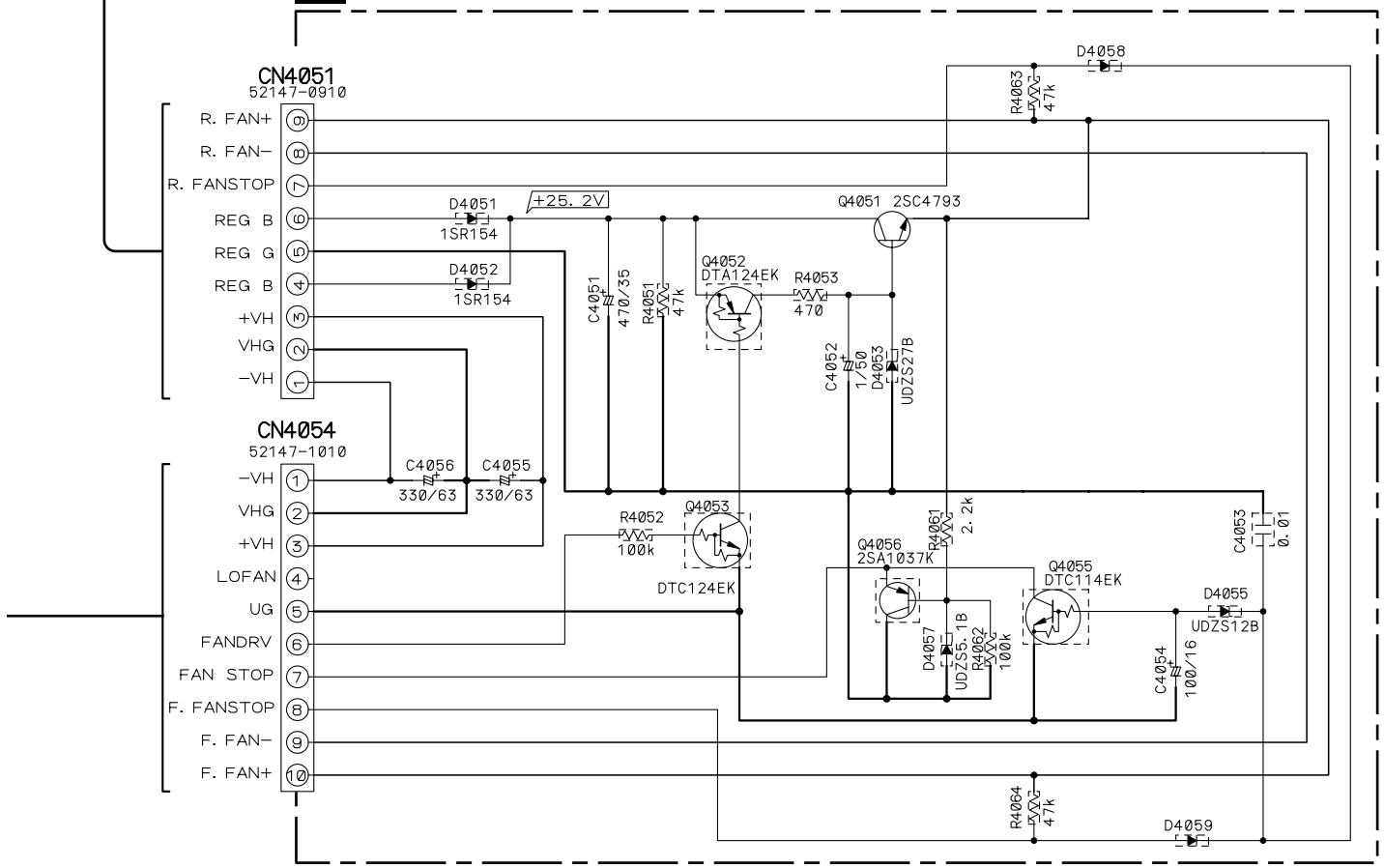
Q FAN CONNECTION ASSY (AWX8005)

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.200 MFD, BY LITTELFUSE INK. FOR IC4701 AND IC4702.

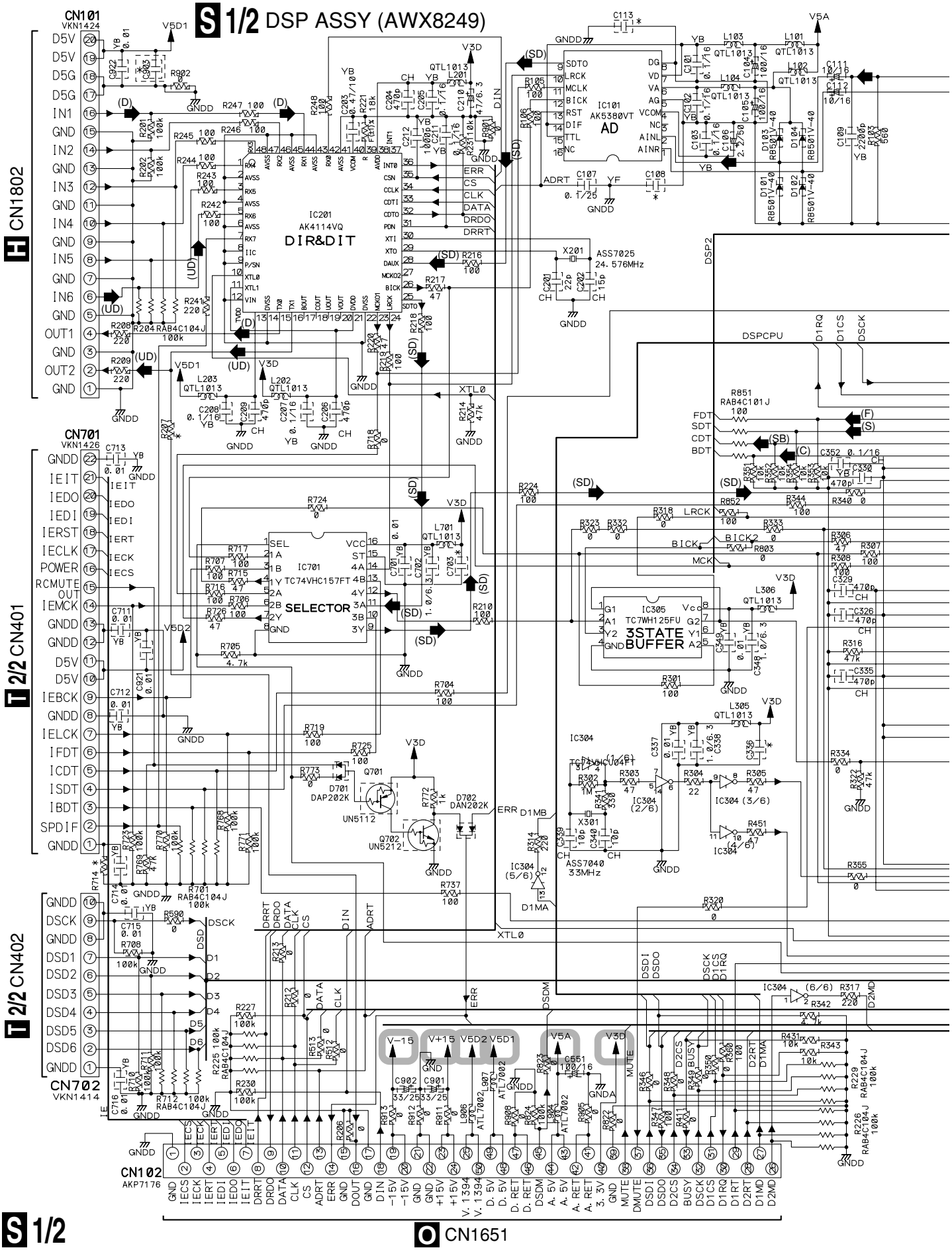


CFTYA□□□J50–T
CFTLA□□□J2A–T
CCSRCH□□□J50–T
CKSRYB□□□K50–T
CKSRYF□□□Z25–T
1SS355–TRB
RS1/16S□□□J–T
RDR1/4VM□□□J–T
RD1/4MUF□□□J–T
RS3LMF□□□J
NON–FRAMABLE

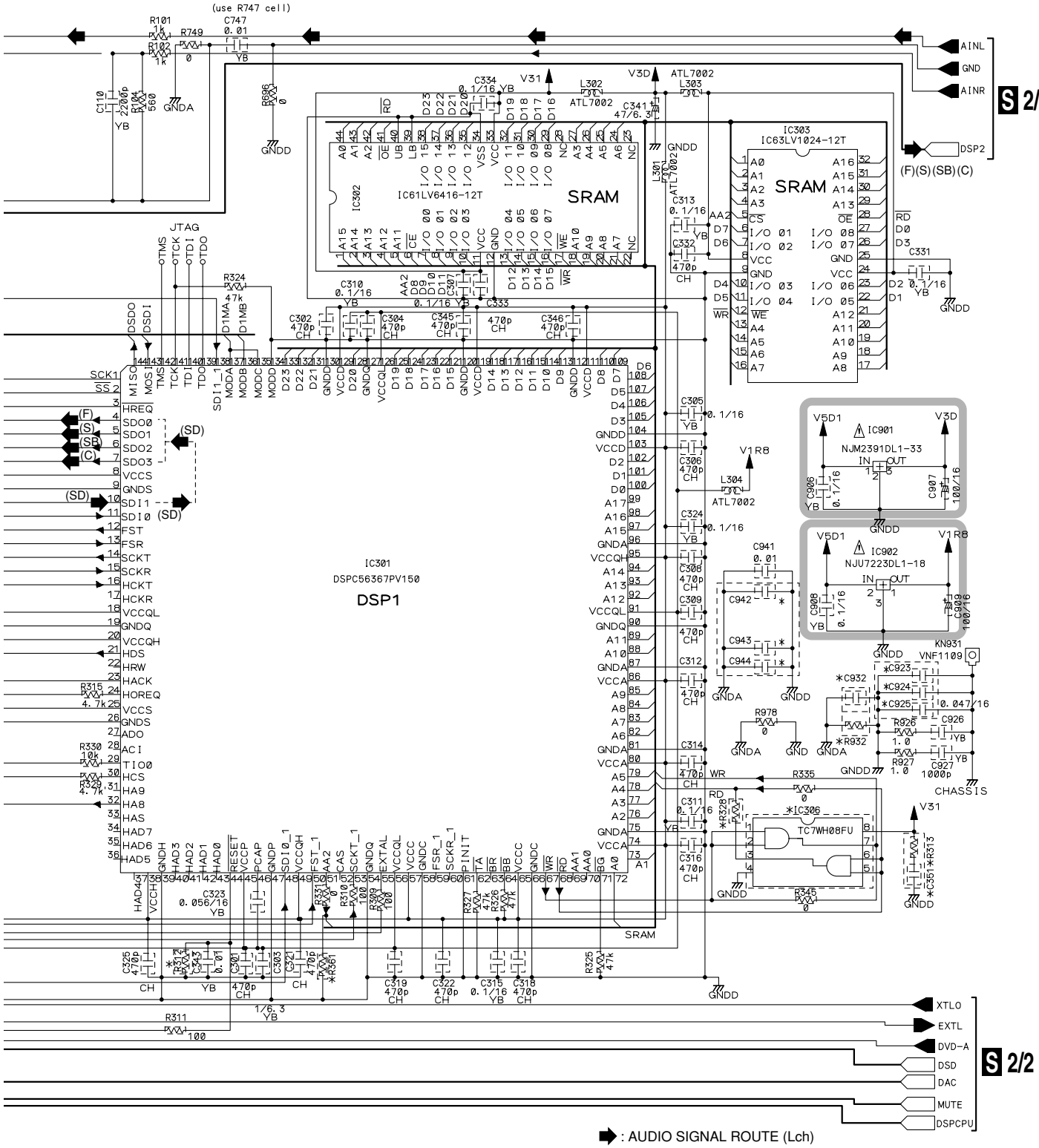
R FAN DRIVE ASSY (AWX8135)



3.13 DSP ASSY (1/2)



: The power supply is shown with the marked box.



: AUDIO SIGNAL ROUTE (Lch)

(F) : AUDIO SIGNAL ROUTE (FRONT Lch)

(S) : AUDIO SIGNAL ROUTE (SURROUND Lch)

(SB) : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)

(C) : AUDIO SIGNAL ROUTE (CENTER ch)

(SD) : SURROUND DATA SIGNAL ROUTE

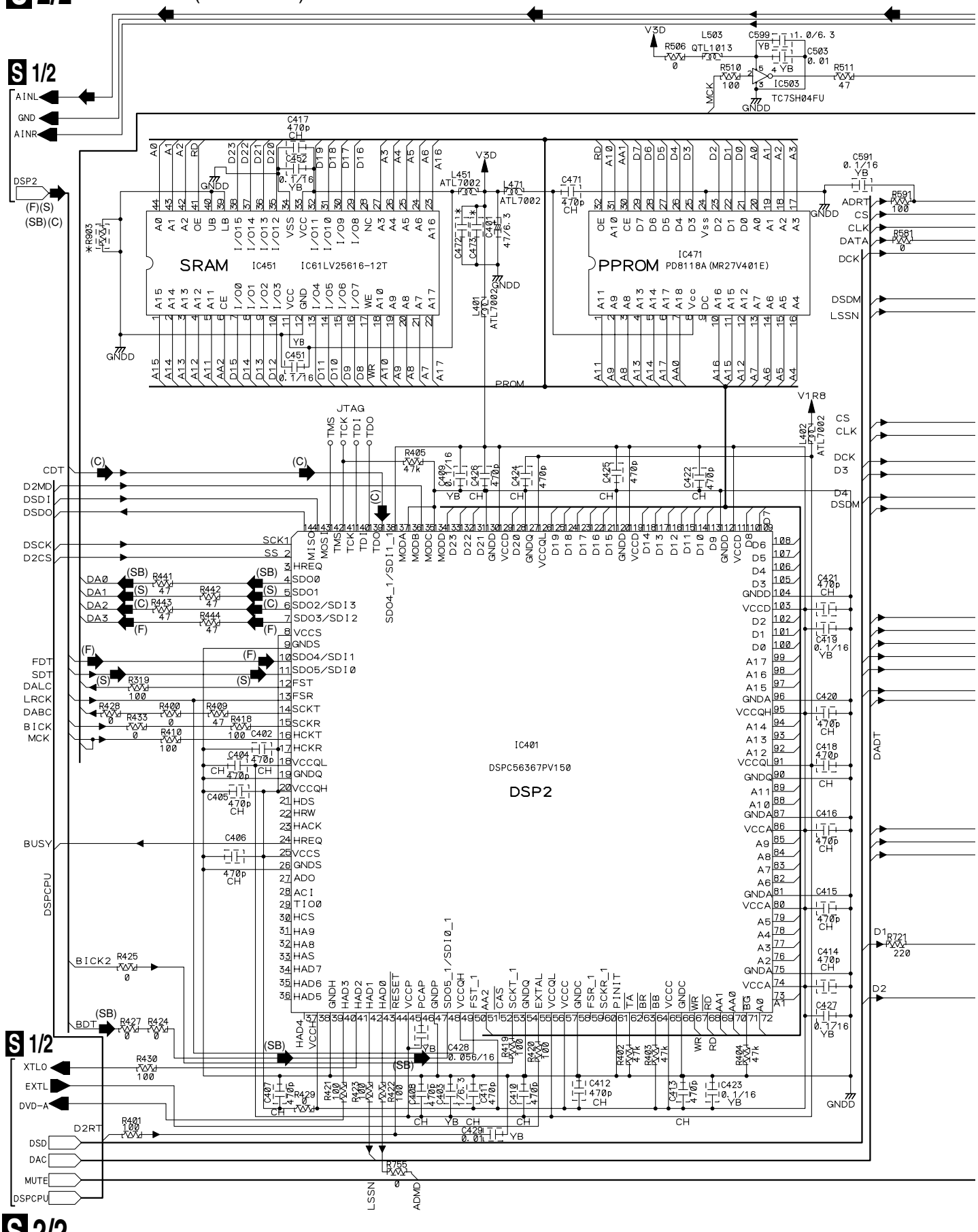
(D) : AUDIO SIGNAL ROUTE (DIGITAL)

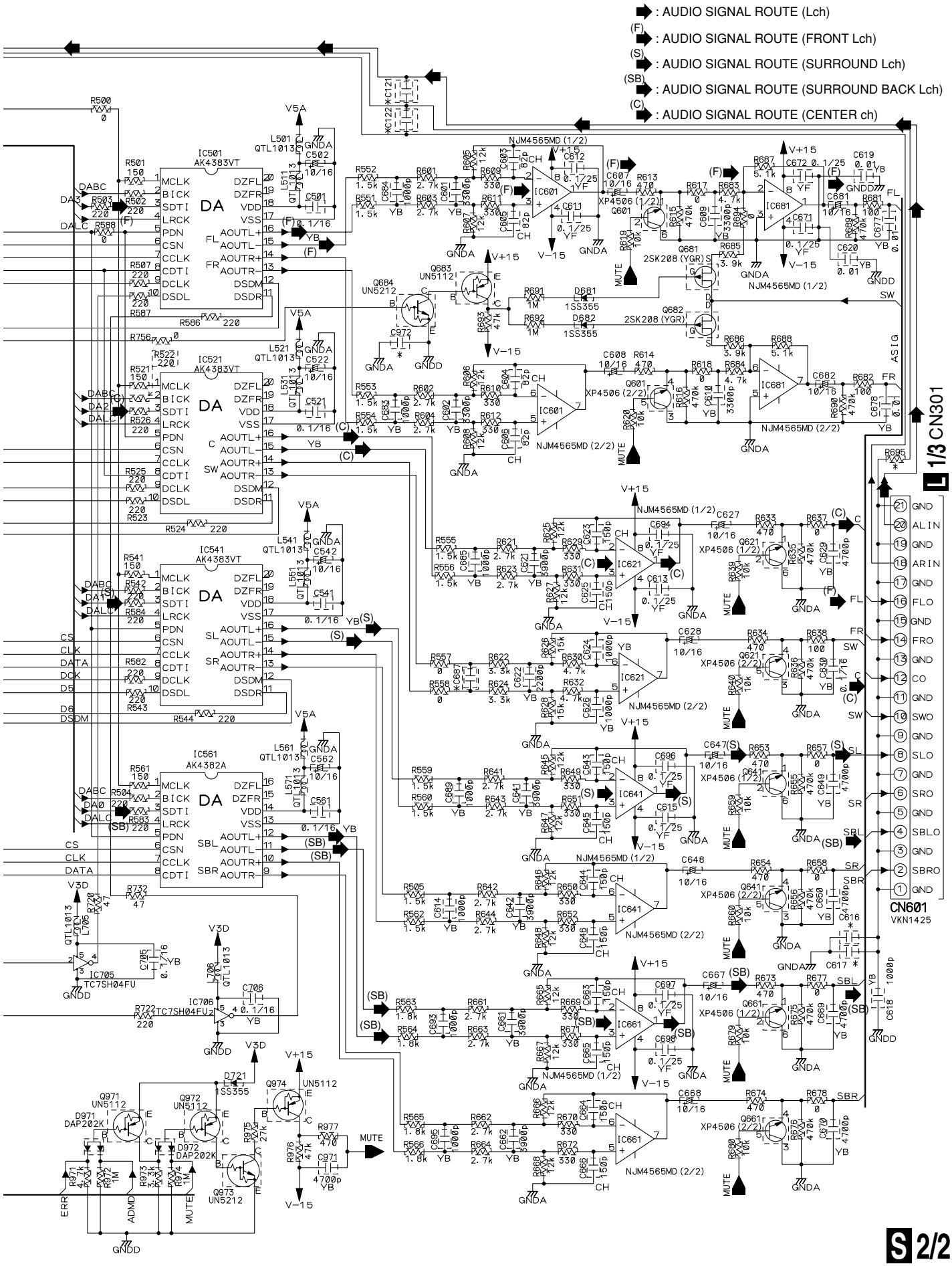
(UD) : AUDIO SIGNAL ROUTE (USB DIGITAL)

S 1/2

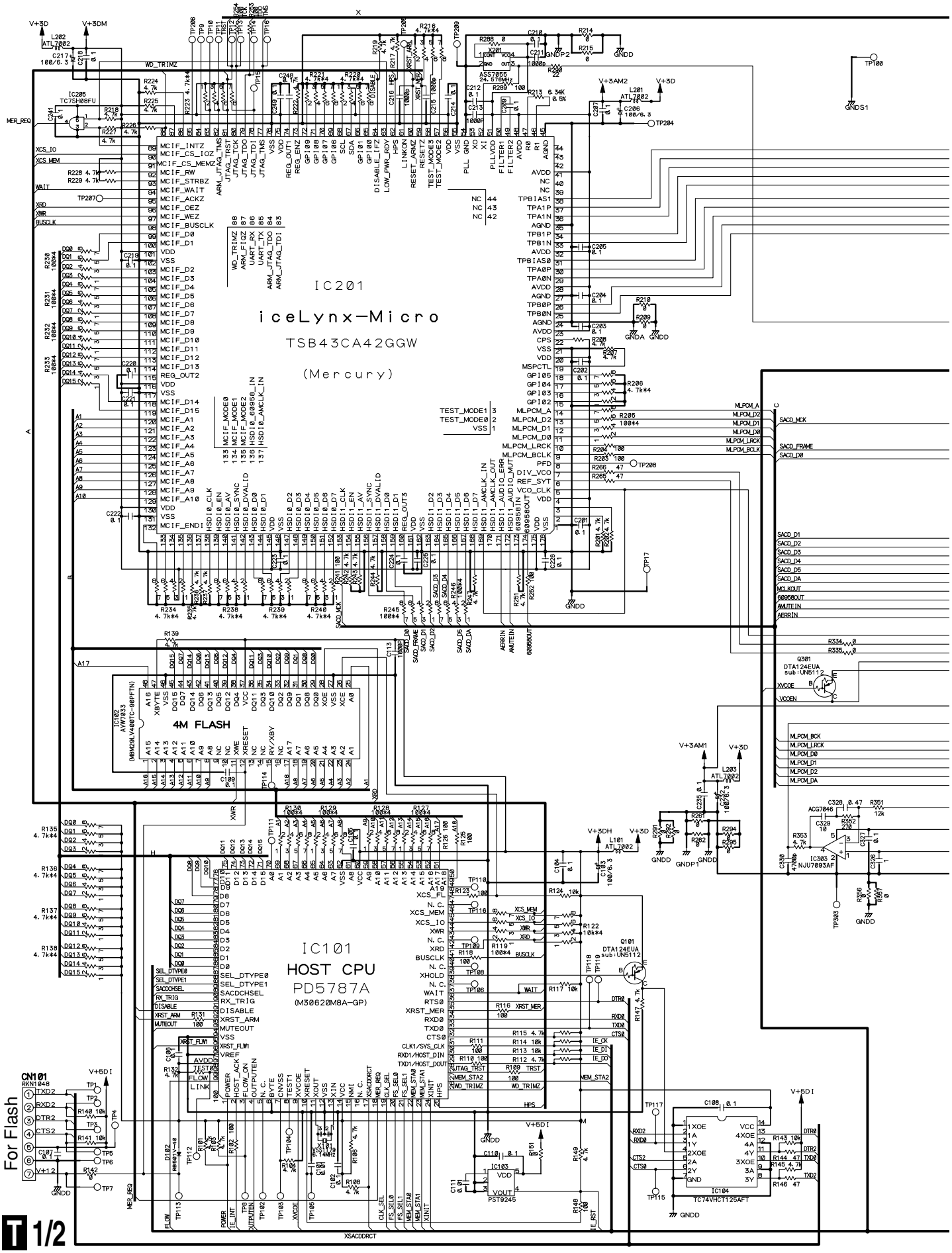
3.14 DSP ASSY (2/2)

S 2/2 DSP ASSY (AWX8249)



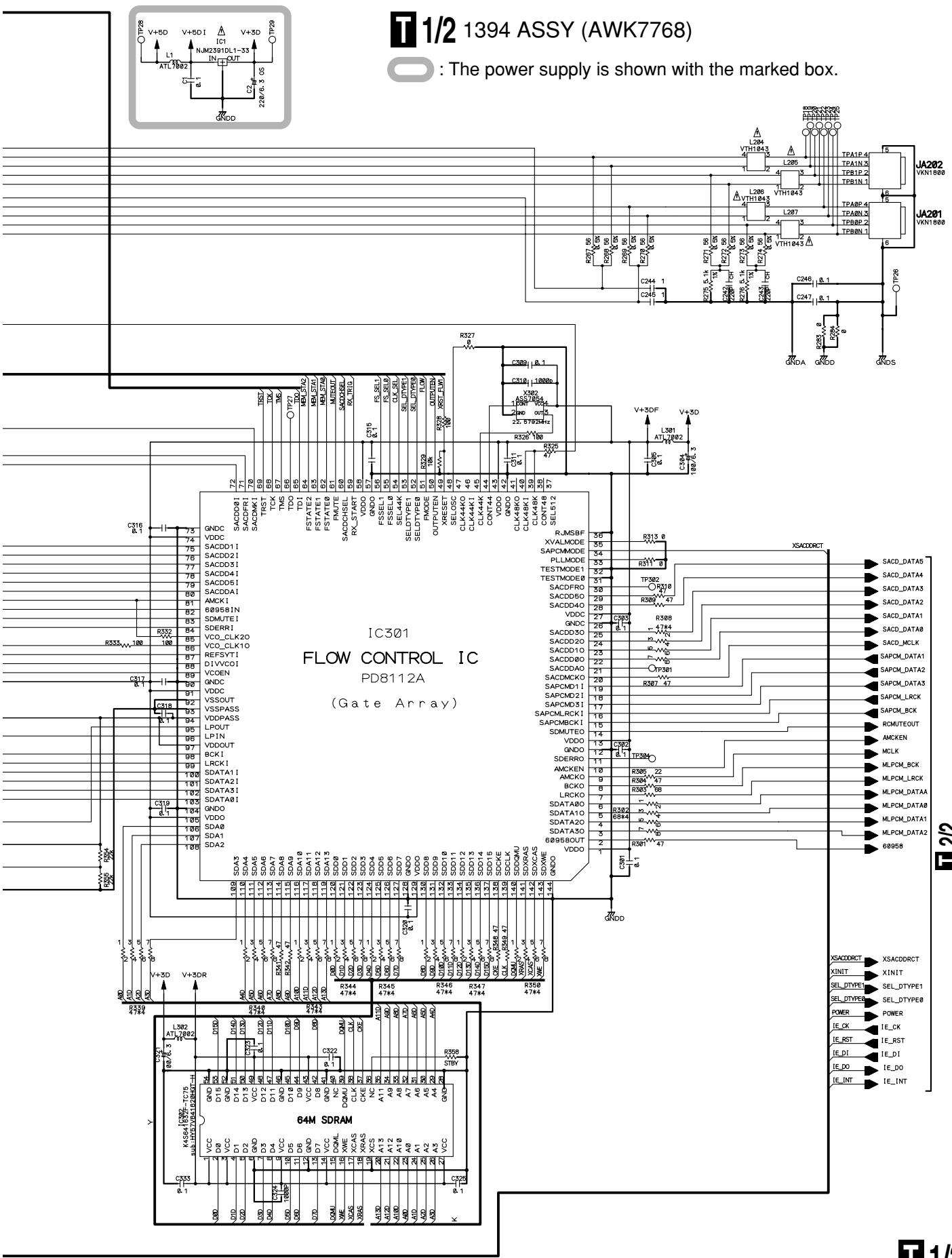

: AUDIO SIGNAL ROUTE (Lch)
(F) : AUDIO SIGNAL ROUTE (FRONT Lch)
(S) : AUDIO SIGNAL ROUTE (SURROUND Lch)
(SB) : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)
(C) : AUDIO SIGNAL ROUTE (CENTER ch)
L 1/3 CN301
S 2/2
CN601
VKN1425
IC501 AK4383VT
IC521 AK4383VT
IC541 AK4383VT
IC561 AK4382A
NJM4565MD (1/2)
NJM4565MD (2/2)
XP4506 (1/2)
XP4506 (2/2)
2SK208 (YGR)
UN5112
1SS355
DAP202K
TC7SH04FU
V+15
V-15
V5A
V3D
GNDA
GNDD

3.15 1394 ASSY (1/2) (VSX-AX5i-S ONLY)



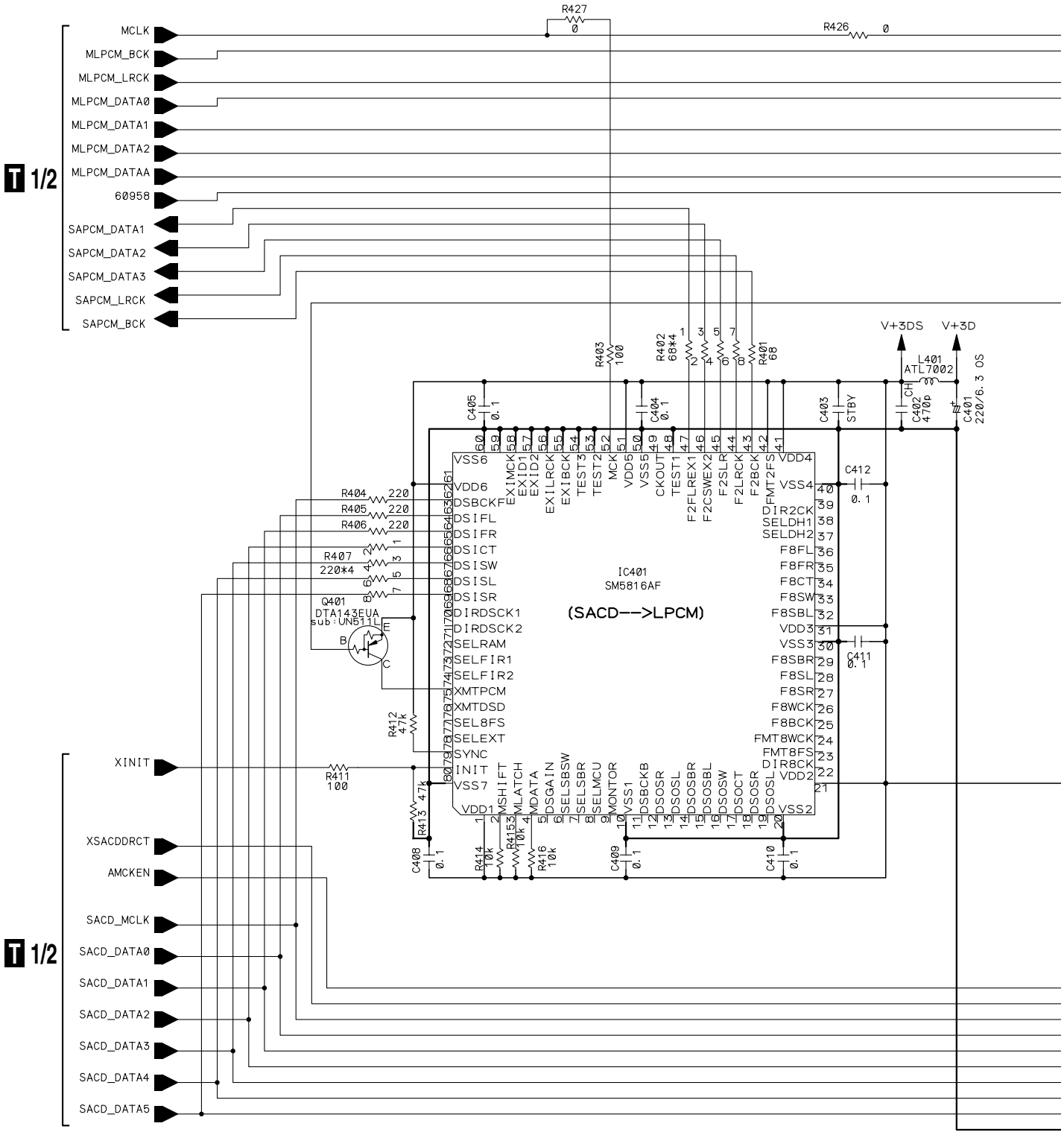
T 1/2 1394 ASSY (AWK7768)

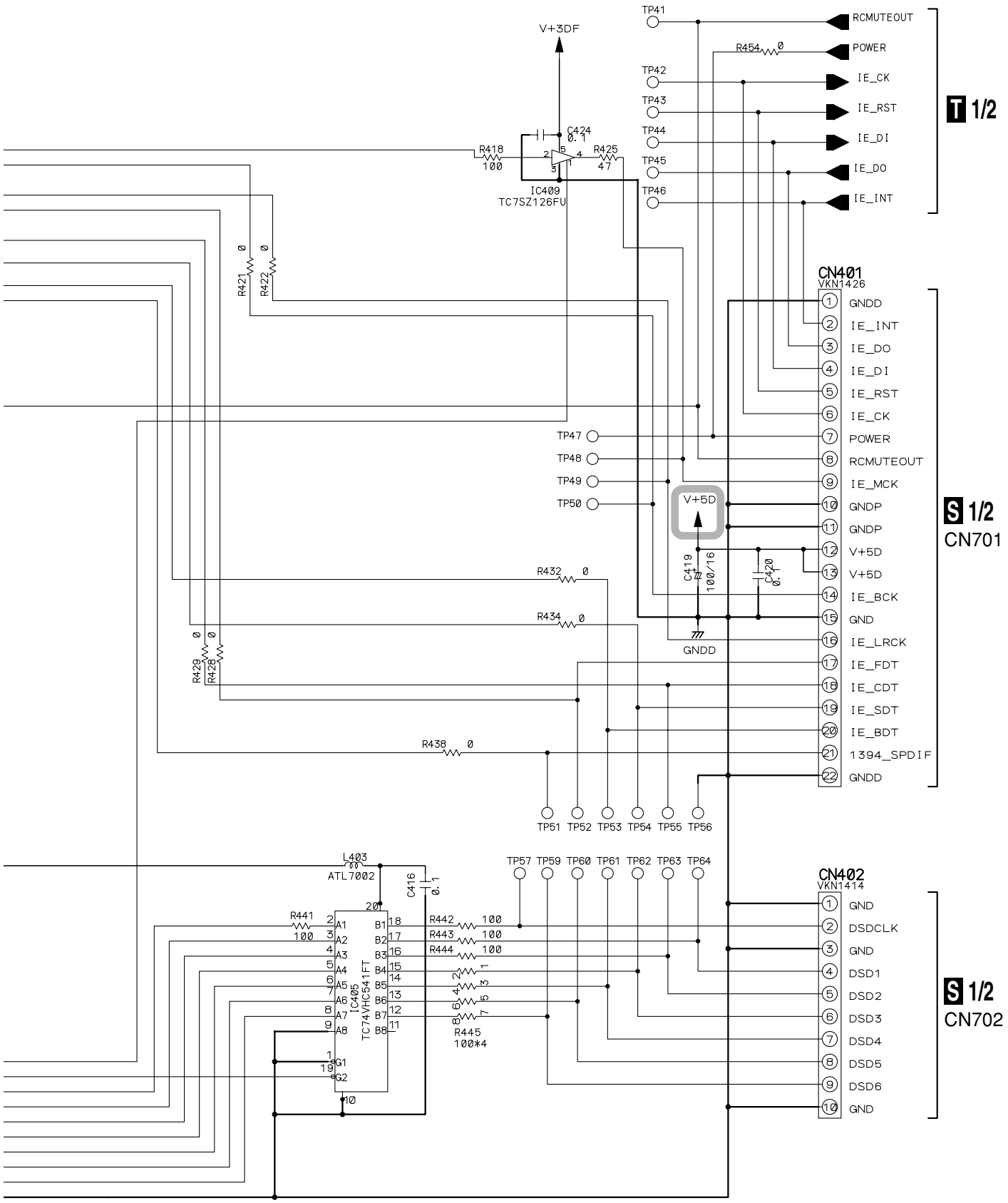
: The power supply is shown with the marked box.



3.16 1394 ASSY (2/2) (VSX-AX5i-S ONLY)

T 2/2 1394 ASSY (AWK7768)





: The power supply is shown with the marked box.

T 2/2

3.17 DISPLAY ASSY

U DISPLAY ASSY
(VSX-AX5i-S : AWX8316)
(VSX-AX3-S : AWX8147)

AX5i

1-1 SB CH MODE
1-2 HI-BIT/ HI-SAMPLING
1-3 SIGNAL SELECT
1-4 MULTI JOG CONT. RETURN
1-5 MULTI JOG CONT. SETUP
1-6 SPEAKER

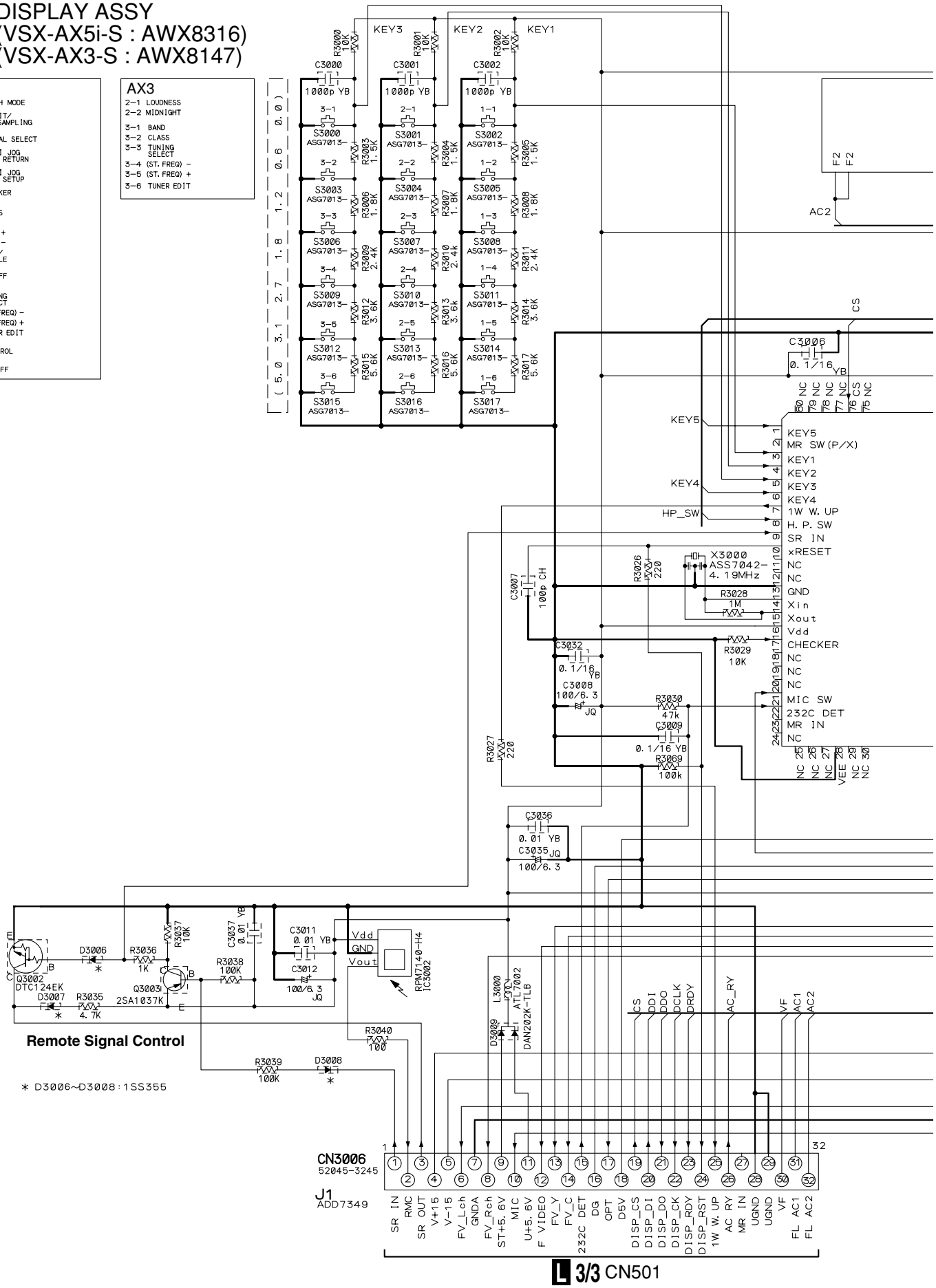
2-1 CLASS
2-2 BAND
2-3 TONE +
2-4 TONE -
2-5 BASS/ TREBLE
2-6 TONE ON/OFF

3-1 TUNING SELECT
3-2 (ST. FREQ) -
3-3 (ST. FREQ) +
3-4 TUNER EDIT
3-5 MR&S CONTROL
3-6 MR&S ON/OFF

AX3

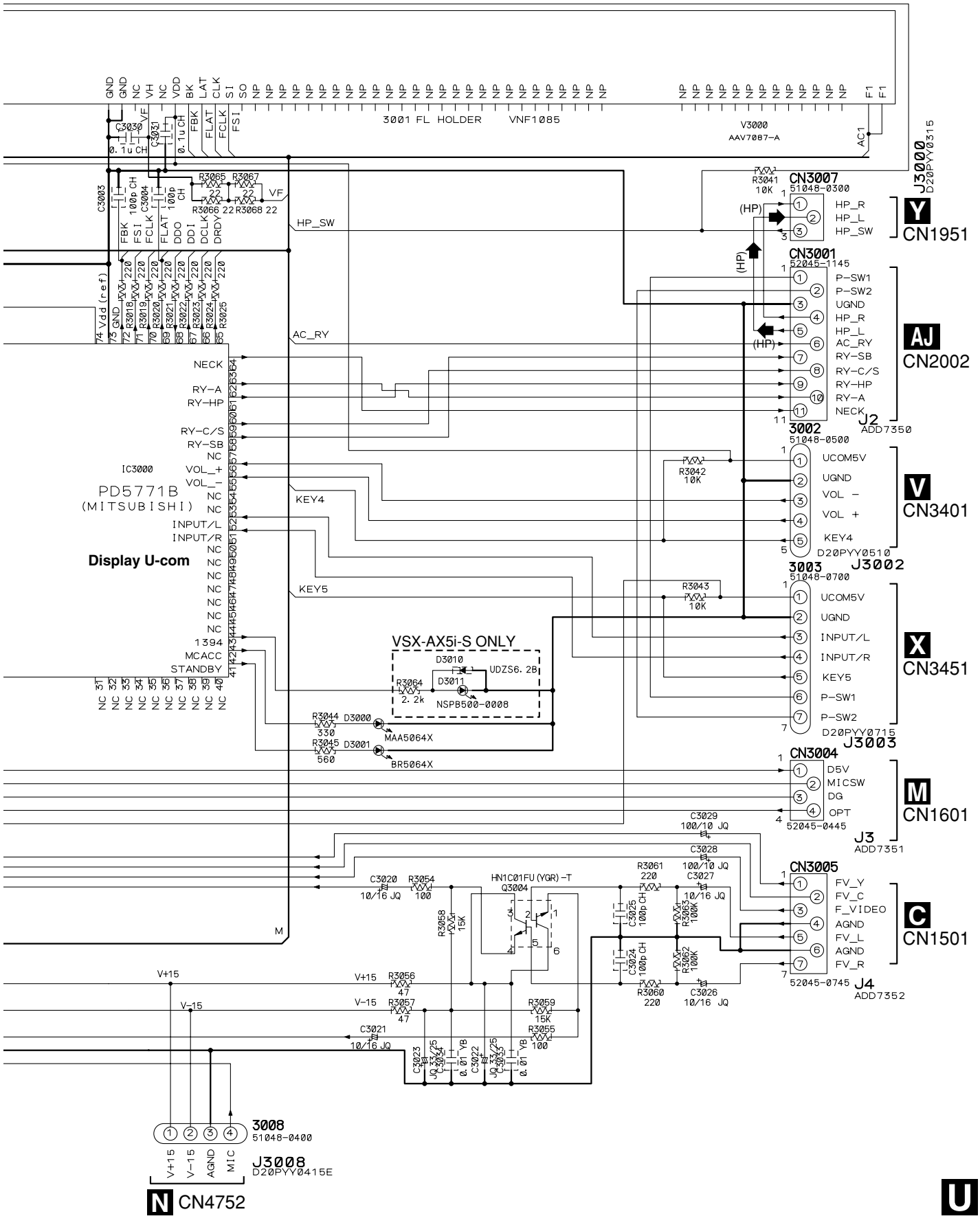
2-1 LOUDNESS
2-2 MIDNIGHT

3-1 BAND
3-2 CLASS
3-3 TUNING SELECT
3-4 (ST. FREQ) -
3-5 (ST. FREQ) +
3-6 TUNER EDIT

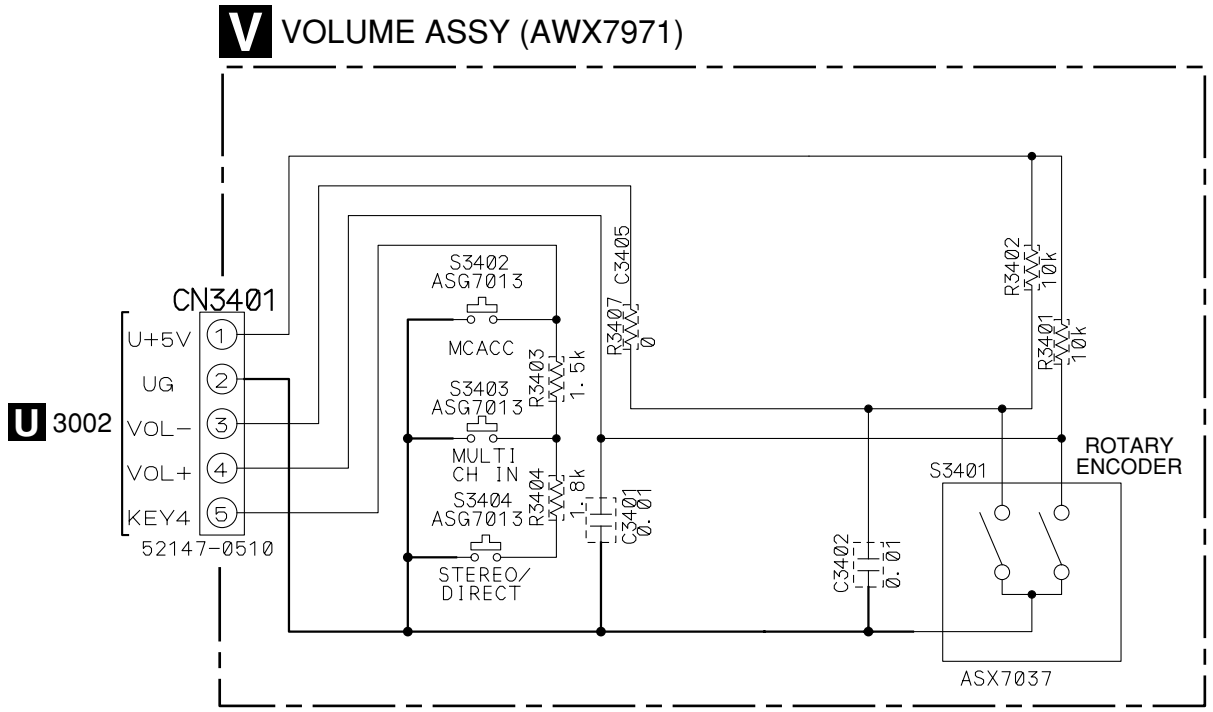


L 3/3 CN501

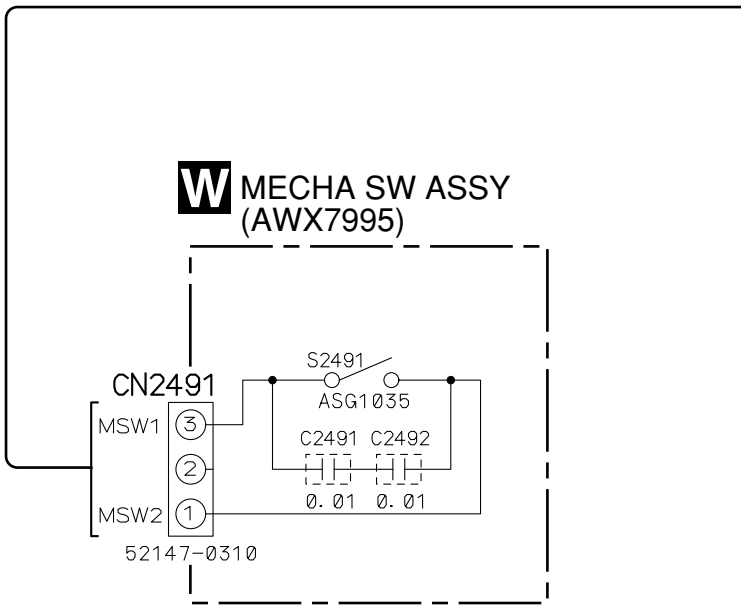
(HP) : AUDIO SIGNAL ROUTE (PHONES ch)



3.18 VOLUME, MECHA SW, MULTI JOG and HEADPHONE ASSYS

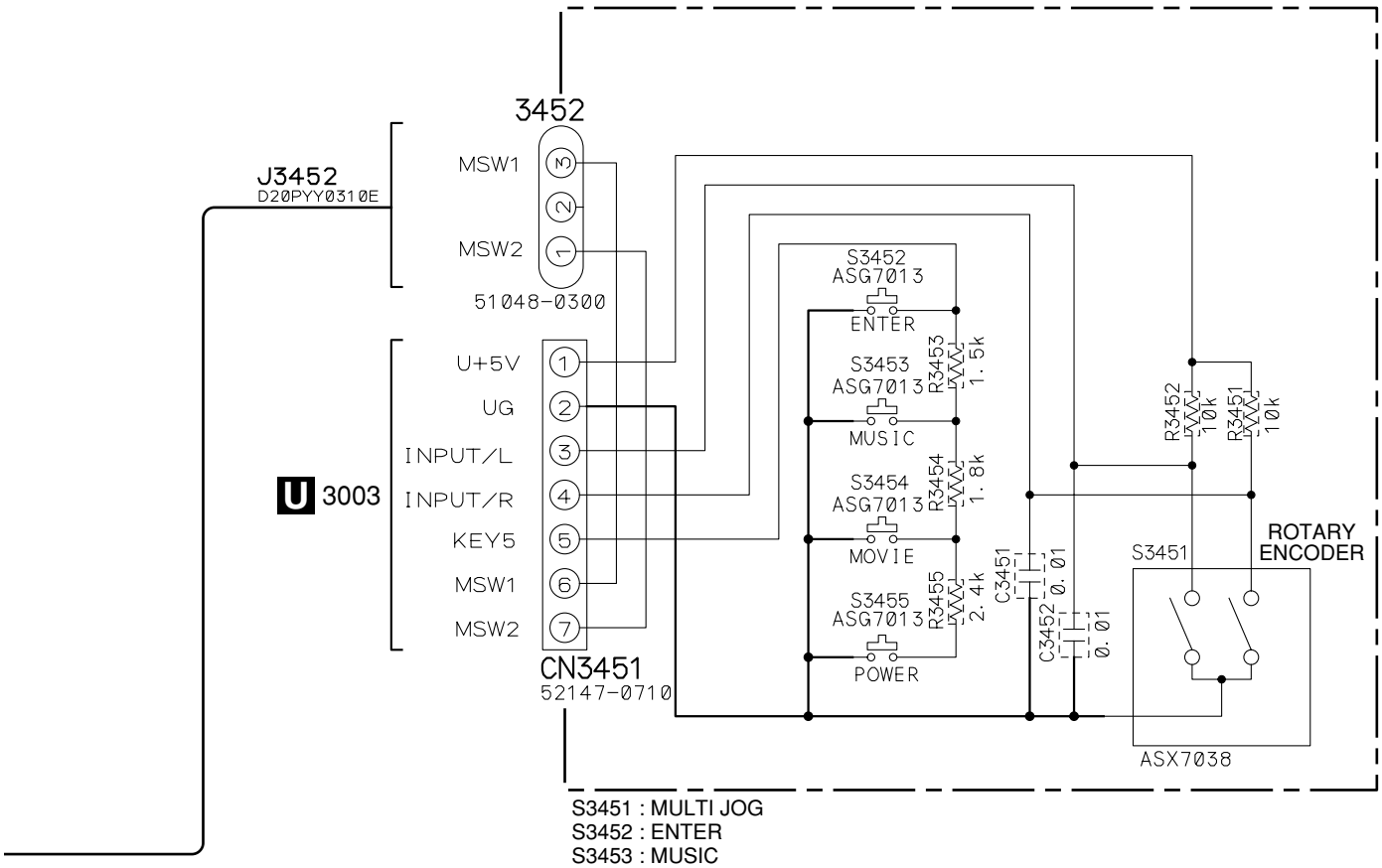


S3401 : MASTER VOLUME
S3402 : ACOUSTIC EQ
S3403 : MULTI CH IN
S3404 : STEREO/DIRECT



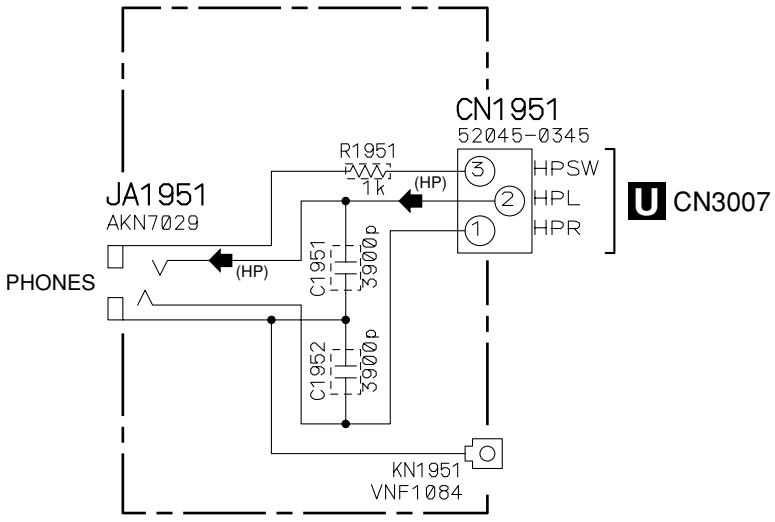
V W

X MULTI JOG ASSY (AWX8015)



S3451 : MULTI JOG
S3452 : ENTER
S3453 : MUSIC
S3454 : MOVIE
S3455 : ⏻ STANDBY/ON

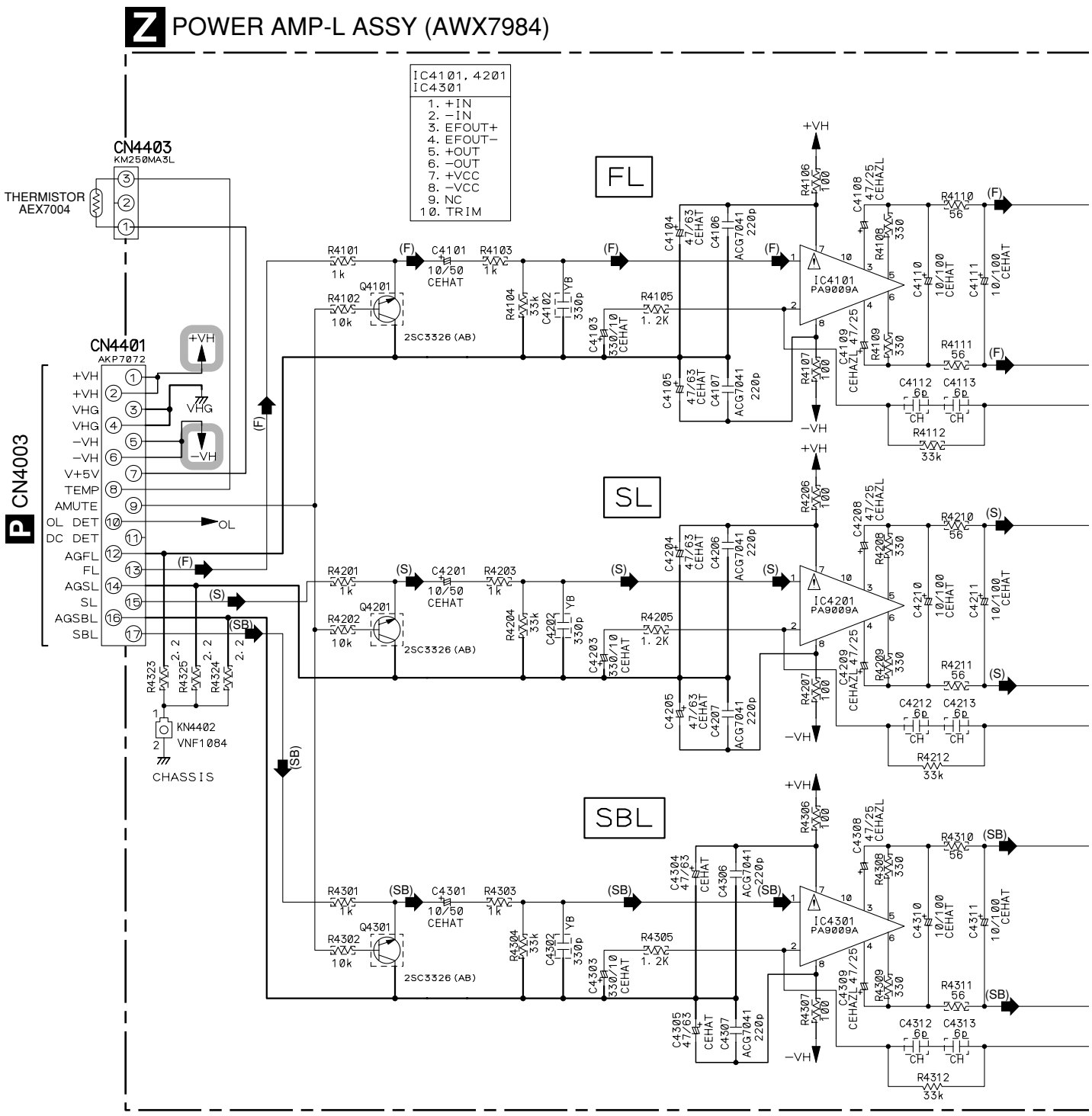
Y HEADPHONE ASSY (AWX7980)



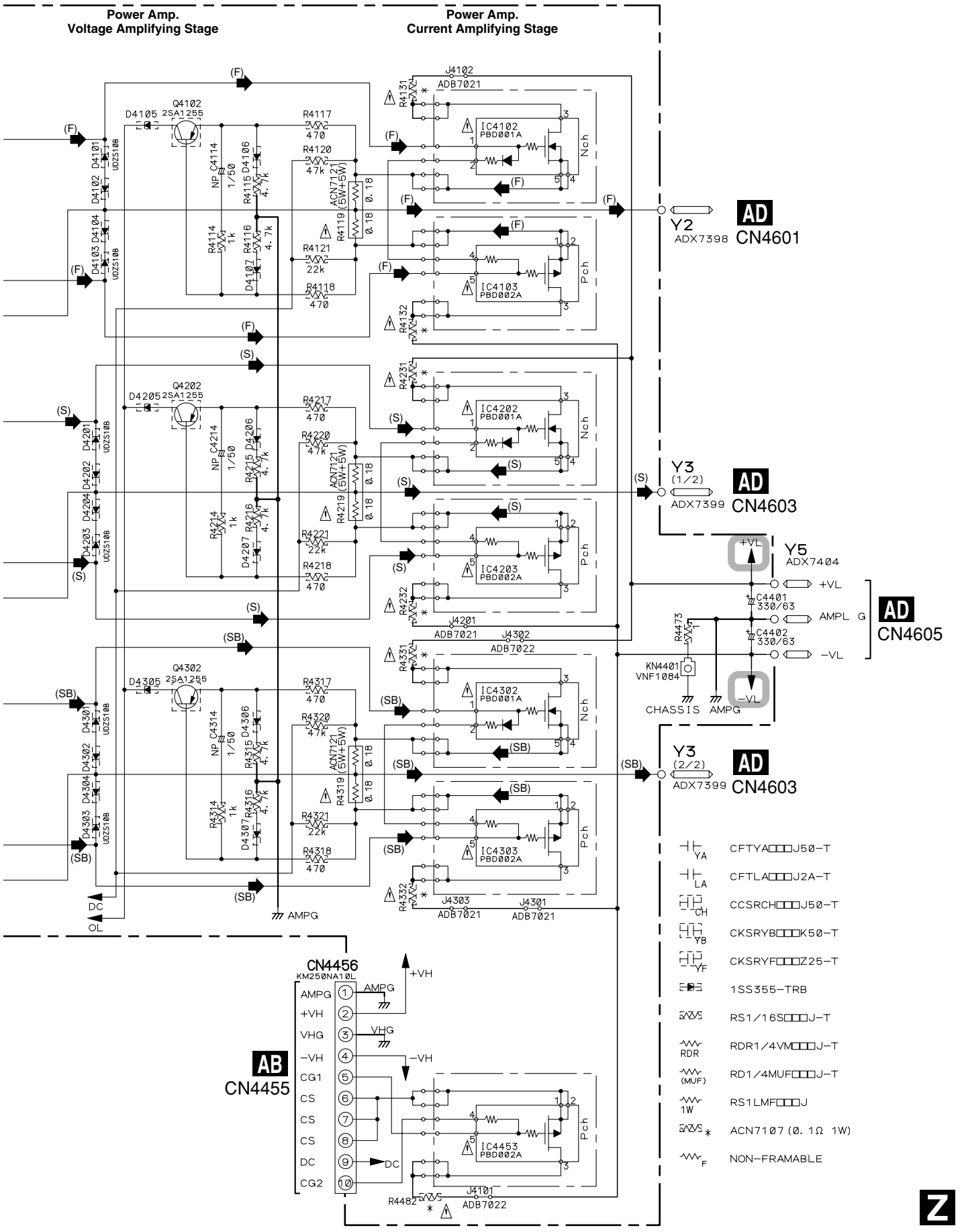
(HP) : AUDIO SIGNAL ROUTE (PHONES ch)

X Y

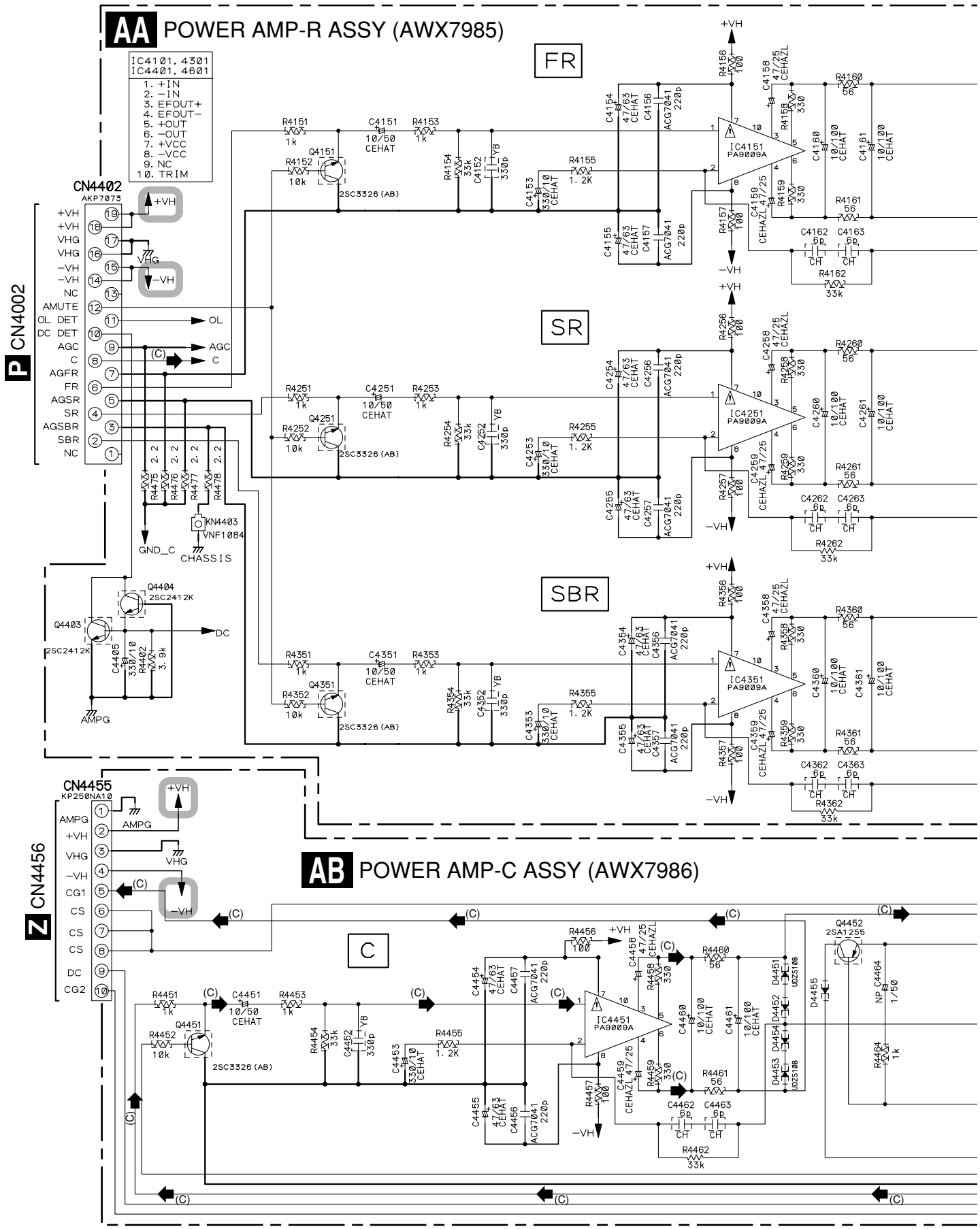
3.19 POWER AMP-L ASSY

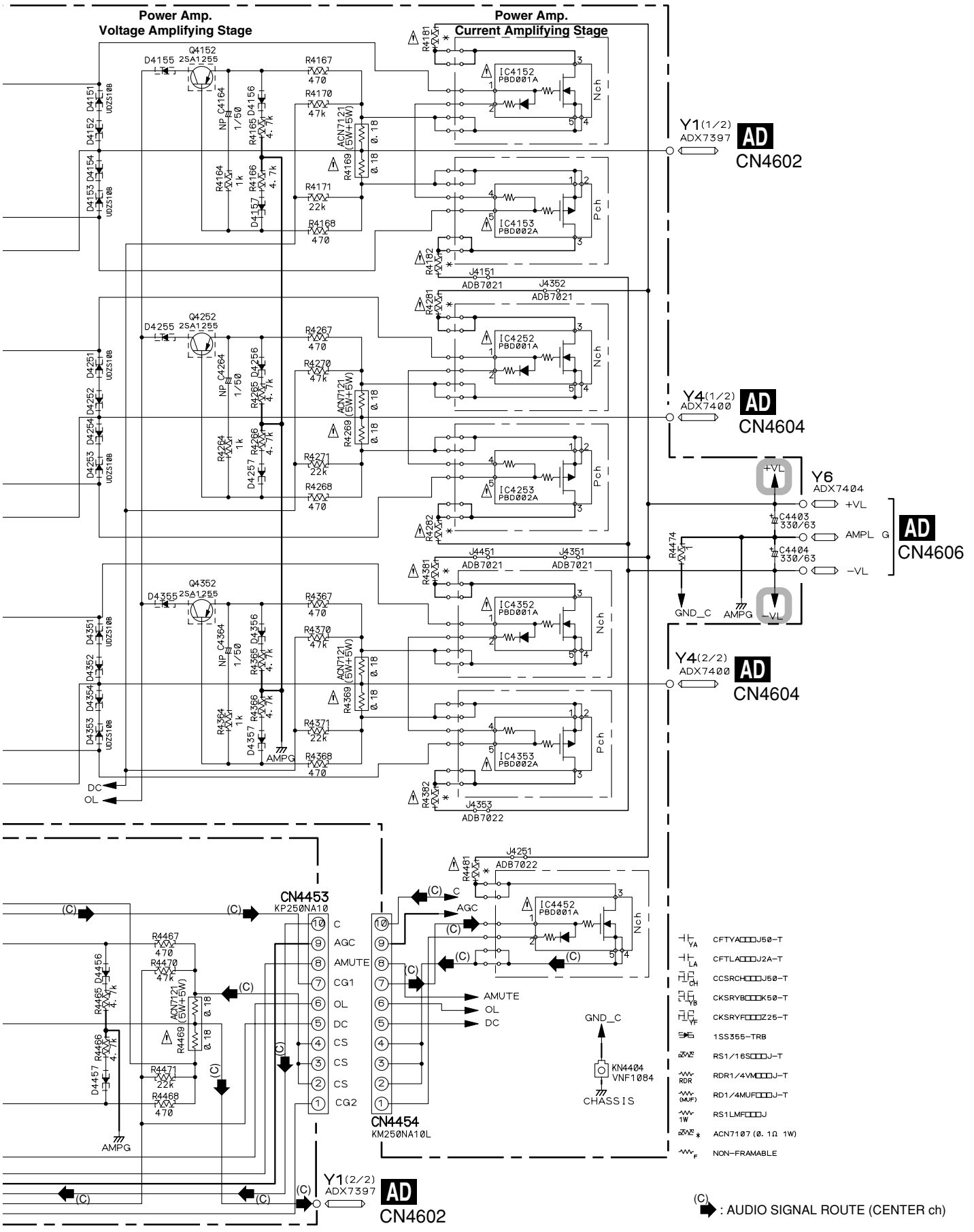


: The power supply is shown with the marked box.



3.20 POWER AMP-R and POWER AMP-C ASSYS

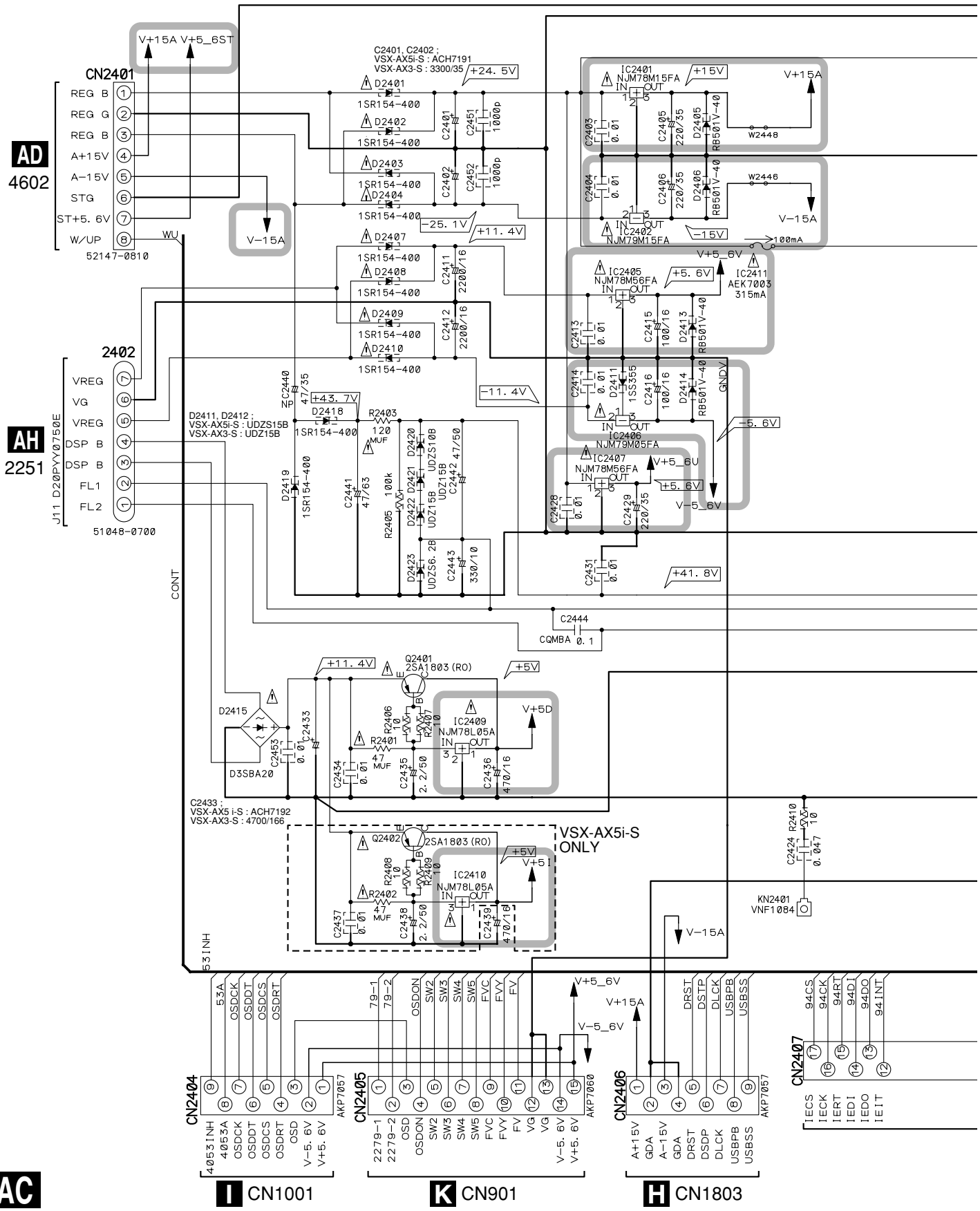


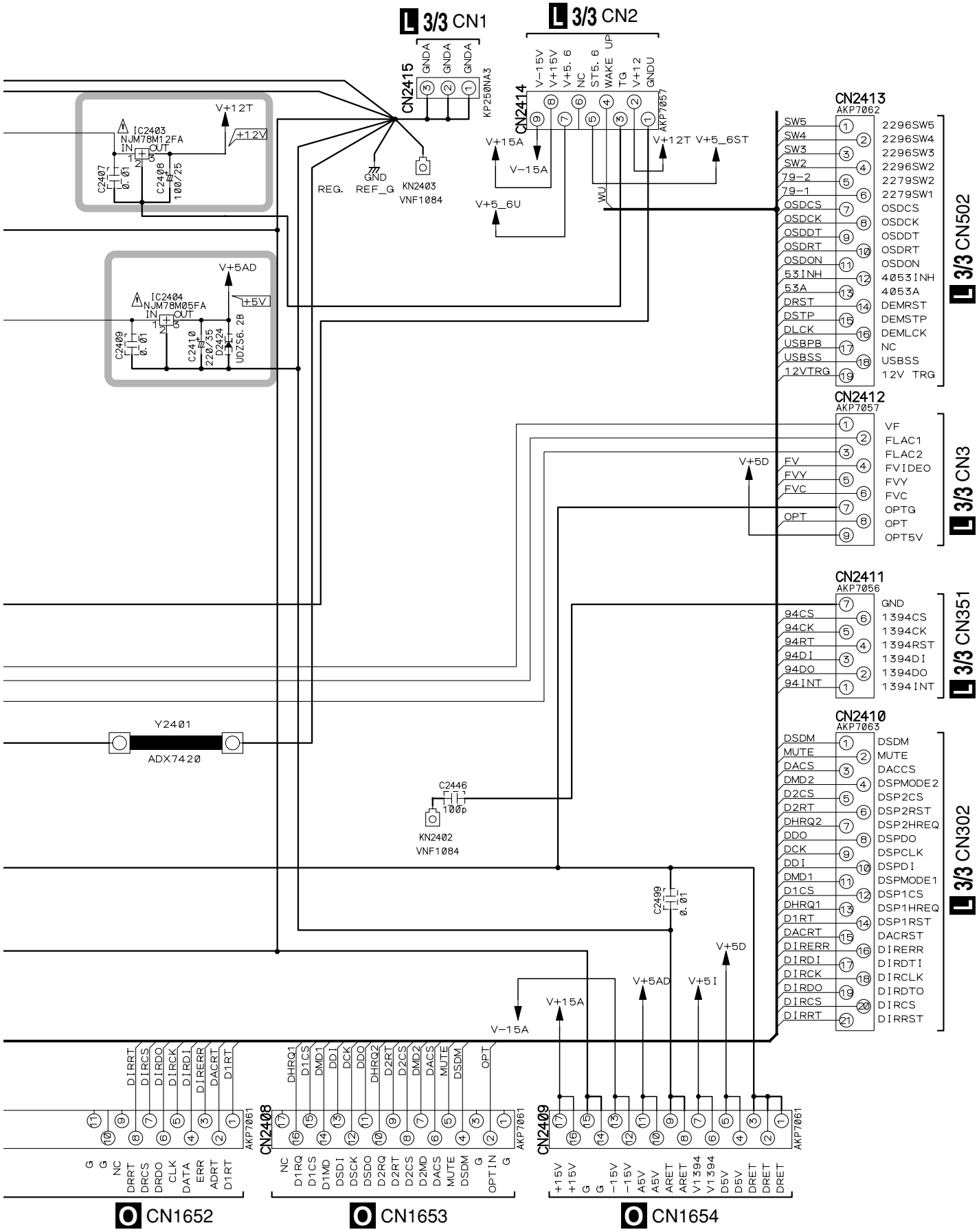

Power Amp.
Voltage Amplifying Stage
Power Amp.
Current Amplifying Stage
Q4152
2SA1255
D4155
Q4252
D4255
Q4352
D4355
IC4152
PBD001A
IC4153
PBD002A
IC4252
IC4253
IC4352
IC4353
IC4452
Nch
Pch
R4167
R4170
R4171
R4168
R4267
R4270
R4271
R4268
R4367
R4370
R4371
R4368
R4481
R4474
C4403
330/63
C4404
330/63
J4151
J4352
J4451
J4351
J4251
J4353
ADB7021
ADB7022
ADB7001
Y1(1/2)
ADX7397
Y4(1/2)
ADX7400
Y4(2/2)
ADX7400
Y6
ADX7404
+VL
AMPL
-VL
GND_C
AMPG
DC
OL
CN4602
CN4604
CN4606
CN4453
KP250NA10
CN4454
KM250NA10L
C
AGC
AMUTE
CG1
OL
DC
CS
CS
CS
CG2
KN4404
VNF1084
CHASSIS
CFTYA□□□J50-T
CFTLA□□□J2A-T
CCSRCH□□□J50-T
CKSRYB□□□K50-T
CKSRYF□□□Z25-T
1SS355-TRB
RS1/16S□□□J-T
RDR1/4VM□□□J-T
RD1/4MUF□□□J-T
RS1LMF□□□J
ACN7107 (0.1Ω 1W)
NON-FRAMABLE
(C) : AUDIO SIGNAL ROUTE (CENTER ch)
: The power supply is shown with the marked box.
AA AB

3.21 REGULATOR ASSY

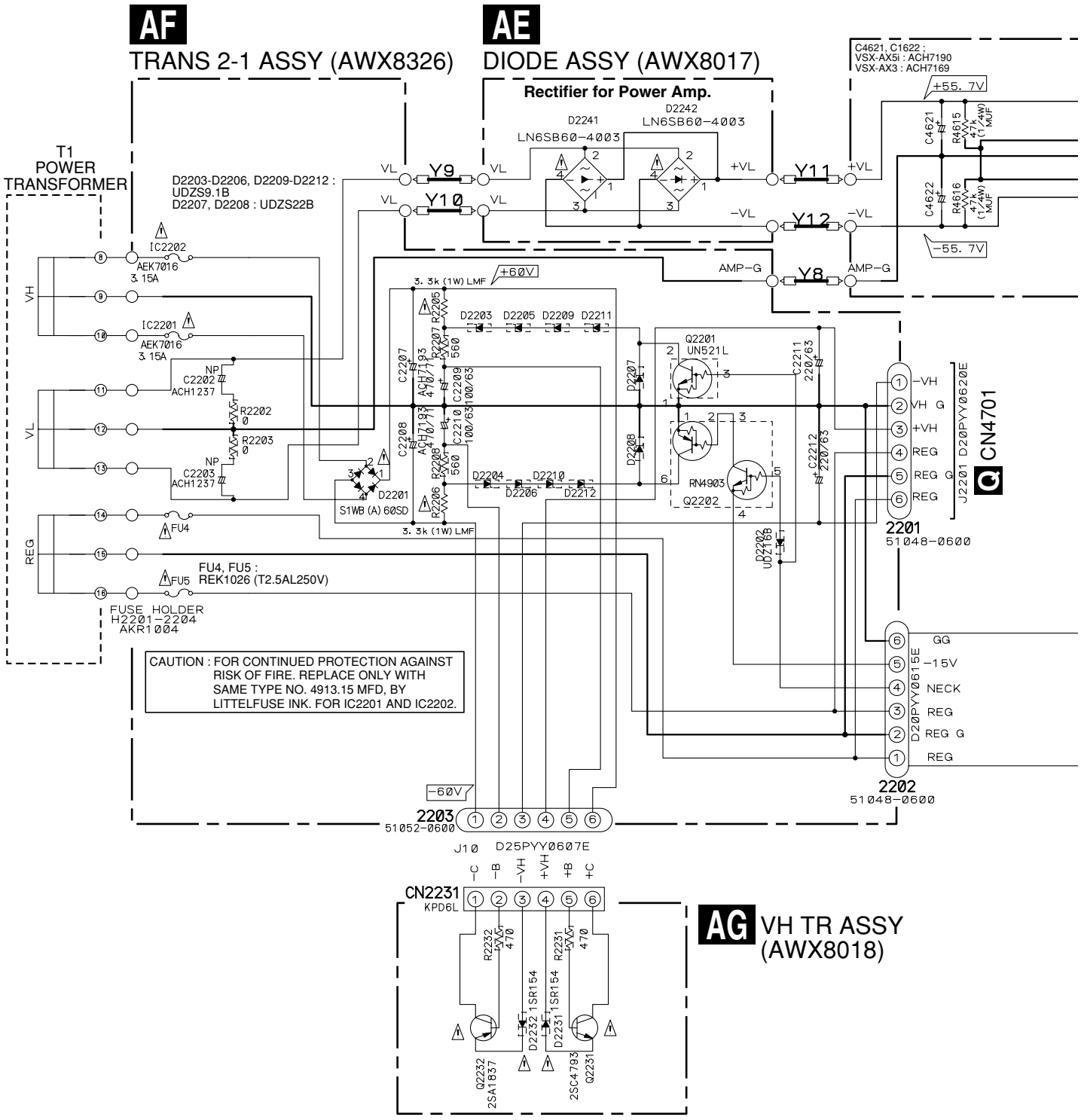
AC REGULATOR ASSY
(VSX-AX5i-S : AWX8305)
(VSX-AX3-S, -K : AWX8020)

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.315 MFD, BY LITTELFUSE INK. FOR IC4701 AND IC2411.




L 3/3 CN1
L 3/3 CN2
CN2415
KP250NA3
GNDA
GNDA
GNDA
CN2414
AKP7057
V-15V
V+15V
V+5. 6
NC
ST5. 6
WAKE UP
TG
V+12
GNDU
IC2403
NJM78M12FA
IN
OUT
V+12T
+12V
C2407
0. 01
C2408
100/25
IC2404
NJM78M05FA
V+5AD
+5V
C2409
0. 01
C2410
220/35
D2424
UDZS6. 2B
REG.
GND
REF_G
KN2403
VNF1084
V+15A
V-15A
V+5_6U
V+12T V+5_6ST
WU
CN2413
AKP7062
SW5
SW4
SW3
SW2
79-2
79-1
OSDCS
OSDCK
OSDDT
OSDRT
OSDON
53INH
53A
DRST
DSTP
DLCK
USBPB
USBSS
12VTRG
2296SW5
2296SW4
2296SW3
2296SW2
2279SW2
2279SW1
OSDCS
OSDCK
OSDDT
OSDRT
OSDON
4053INH
4053A
DEMRST
DEMSTP
DEMLCK
NC
USBSS
12V TRG
L 3/3 CN502
CN2412
AKP7057
VF
FLAC1
FLAC2
FVIDEO
FVY
FVC
OPTG
OPT
OPT5V
V+5D
FV
FVY
FVC
OPT
L 3/3 CN3
CN2411
AKP7056
GND
94CS
94CK
94RT
94DI
94DO
94INT
1394CS
1394CK
1394RST
1394DI
1394DO
1394INT
L 3/3 CN351
CN2410
AKP7063
DSDM
MUTE
DACS
DMD2
D2CS
D2RT
DHRQ2
DDO
DCK
DDI
DMD1
D1CS
DHRQ1
D1RT
DACRT
DIRERR
DIRDI
DIRCK
DIRDO
DIRCS
DIRRT
DSPMODE2
DSP2CS
DSP2RST
DSP2HREQ
DSPDO
DSPCLK
DSPDI
DSPMODE1
DSP1CS
DSP1HREQ
DSP1RST
DACRST
DIRERR
DIRDTI
DIRCLK
DIRDTO
DIRCS
DIRRST
L 3/3 CN302
Y2401
ADX7420
C2446
100p
KN2402
VNF1084
C2499
0. 01
V+5D
V+5AD
V+5I
V+15A
V-15A
CN2408
AKP7061
DIRRT
DIRCS
DIRDO
DIRCK
DIRDI
DIRERR
DACRT
D1RT
G
G
NC
DRRT
DRCS
DRDO
CLK
DATA
ERR
ADRT
D1RT
CN2409
AKP7061
+15V
+15V
G
G
-15V
-15V
A5V
A5V
ARET
ARET
V1394
V1394
D5V
D5V
DRET
DRET
DRET
CN2408
AKP7061
DHRQ1
D1CS
DMD1
DDI
DCK
DDO
DHRQ2
D2RT
D2CS
DMD2
DACS
MUTE
DSDM
OPT
NC
D1RQ
D1CS
D1MD
DSDI
DSCK
DSDO
D2RQ
D2RT
D2CS
D2MD
DACS
MUTE
DSDM
G
OPTIN
G
CN1652
CN1653
CN1654
: The power supply is shown with the marked box.
AC

3.22 SP/PS, DIODE, TRANS 2-1 and VH TR ASSYS



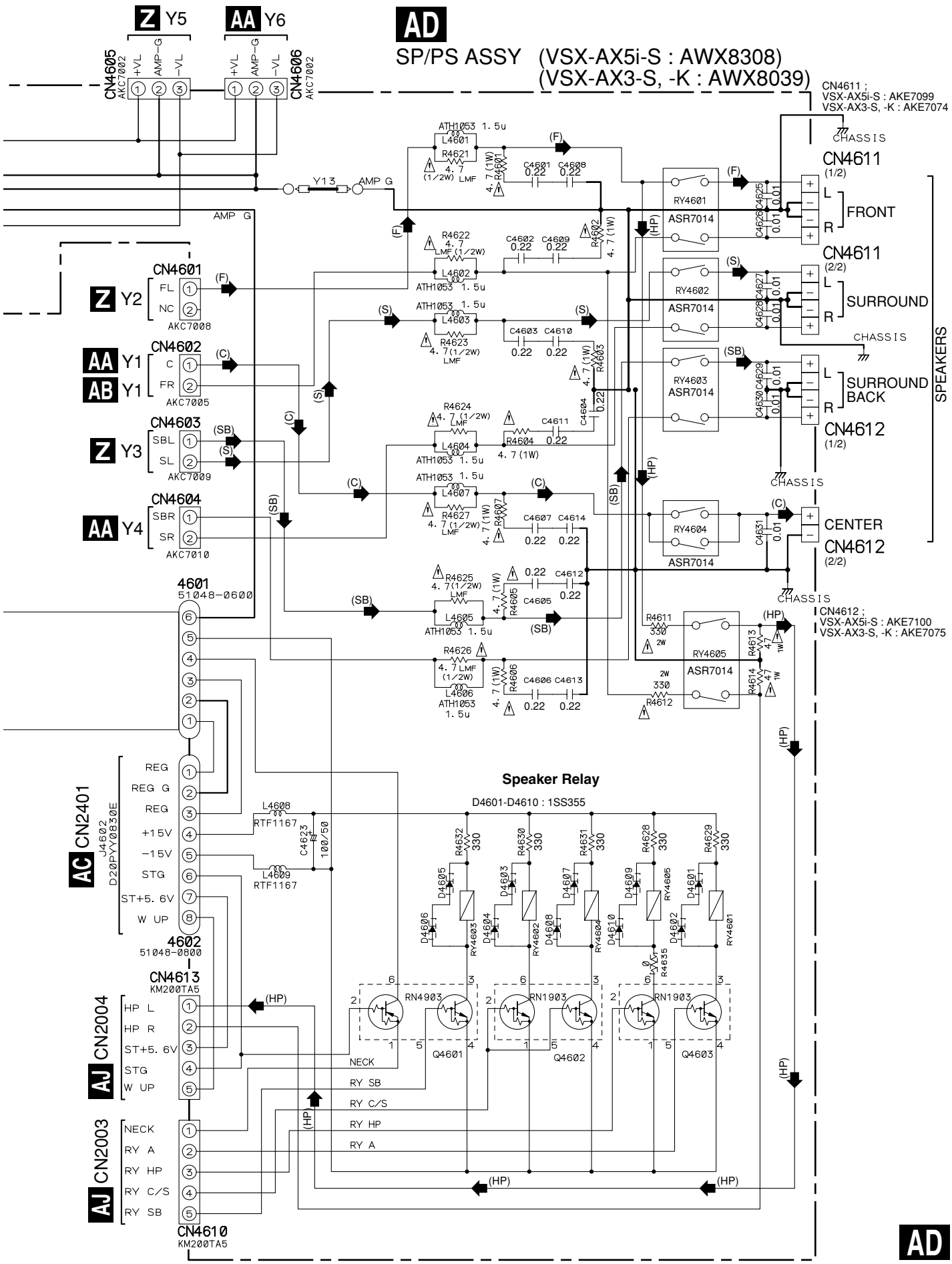
• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

(F) : AUDIO SIGNAL ROUTE (FRONT Lch)
(S) : AUDIO SIGNAL ROUTE (SURROUND Lch)
(SB) : AUDIO SIGNAL ROUTE (SURROUND BACK Lch)
(C) : AUDIO SIGNAL ROUTE (CENTER ch)
(HP) : AUDIO SIGNAL ROUTE (PHONES ch)

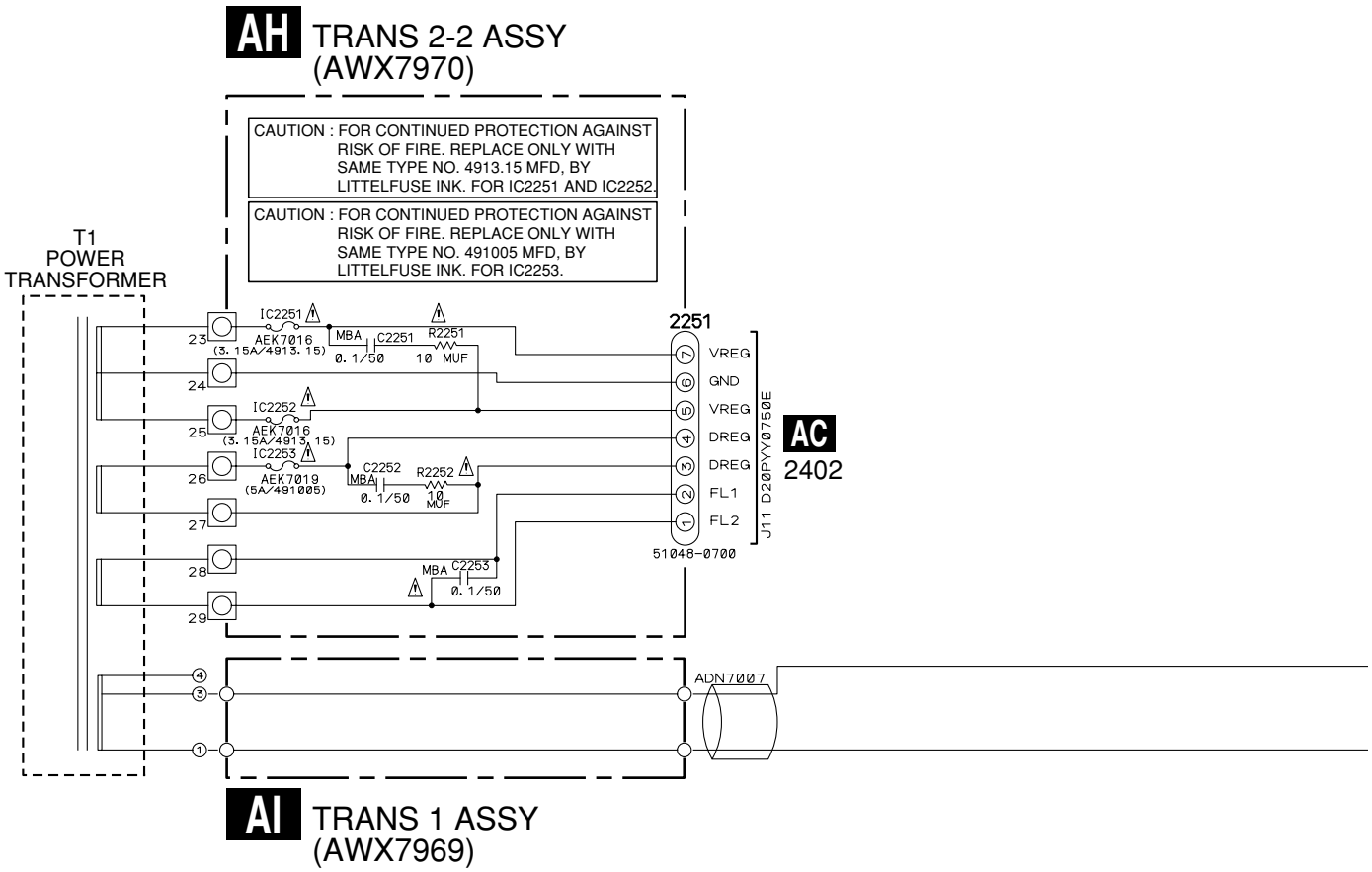
AD AE AF AG

AD SP/PS ASSY (VSX-AX5i-S : AWX8308) (VSX-AX3-S, -K : AWX8039)



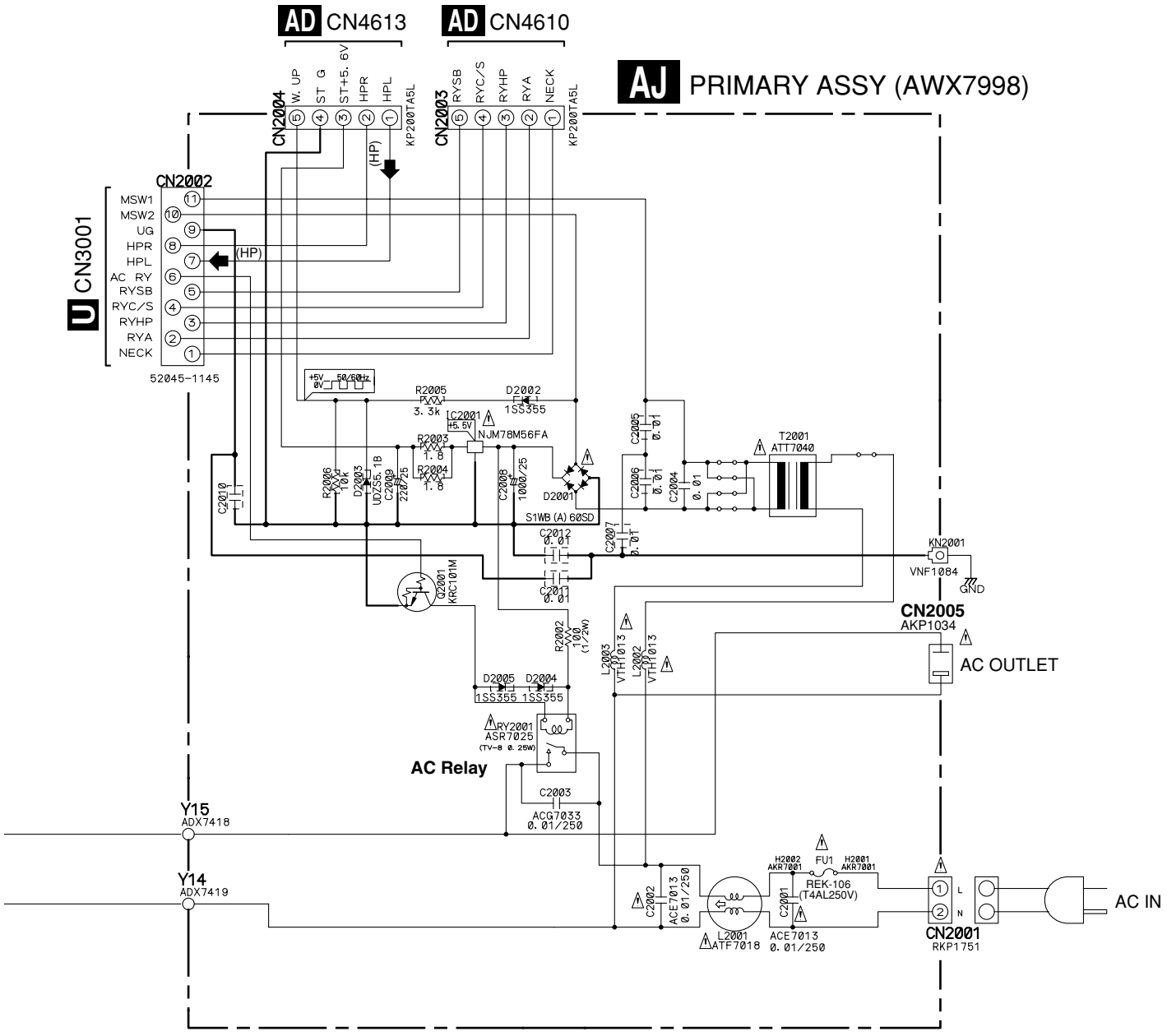
AD

3.23 TRANS 2-2, TRANS 1 and PRIMARY ASSYS



AH AI

(HP) : AUDIO SIGNAL ROUTE (PHONES ch)

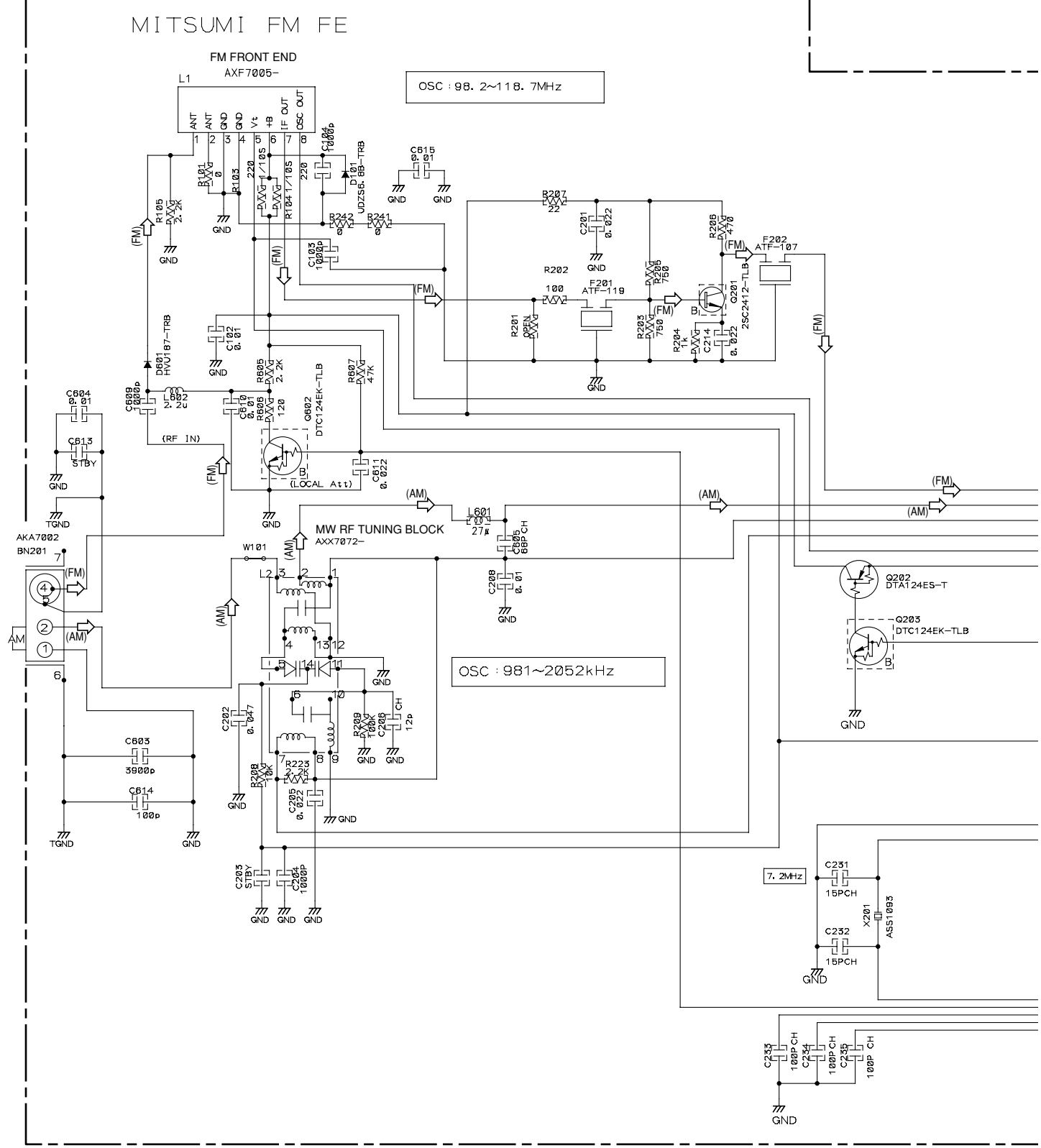


• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

3.24 FM/AM TUNER MODULE

AK FM/AM TUNER MODULE (AXQ7232)



: The power supply is shown with the marked box.

(TX) : AUDIO SIGNAL ROUTE (TUNER)

(AM) : AM SIGNAL ROUTE

(FM) : FM SIGNAL ROUTE

Notes

1. RESISTORS

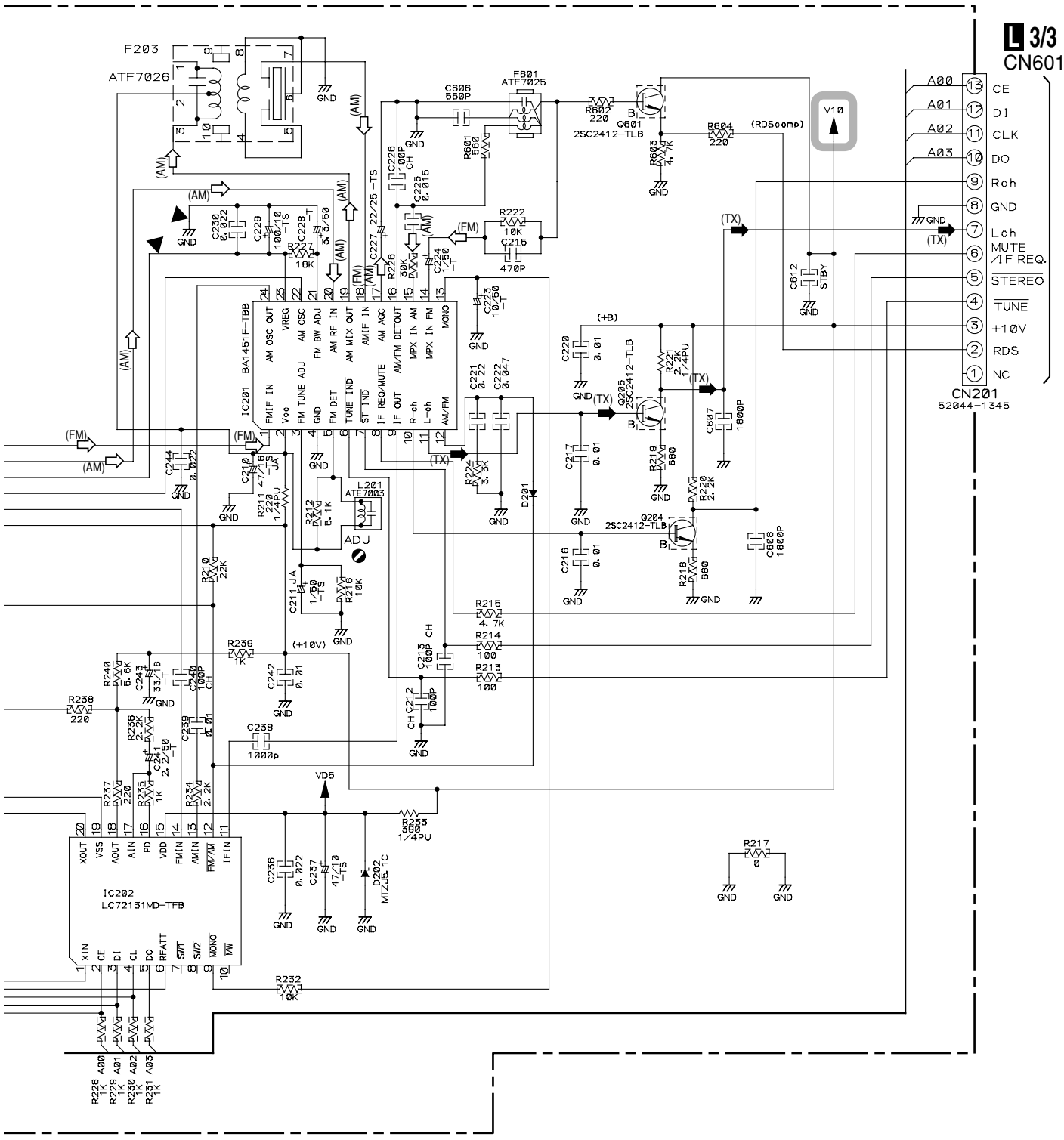
Indicated in Ω, 1/16W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.

2. CAPACITORS

Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P:PF.

3. DIODES

No mark diode is 1SS133.



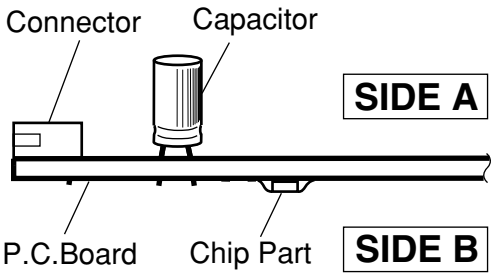
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

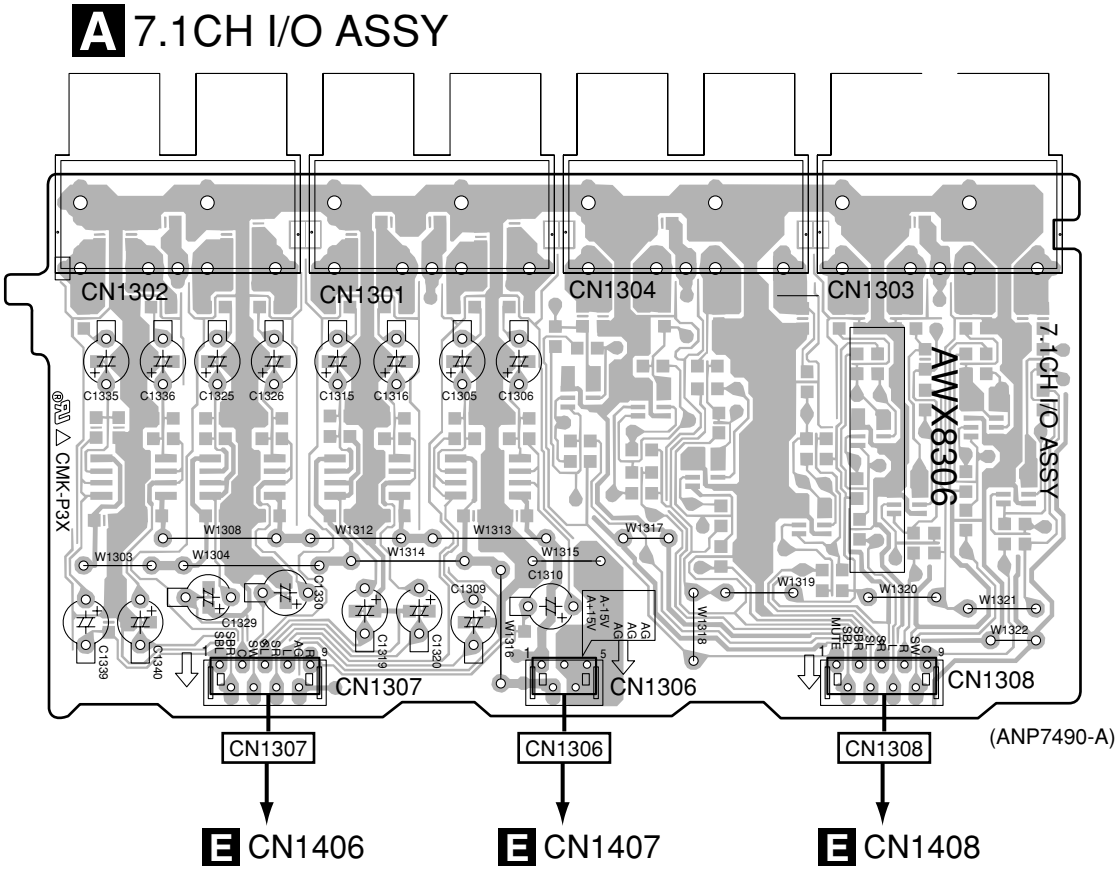
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



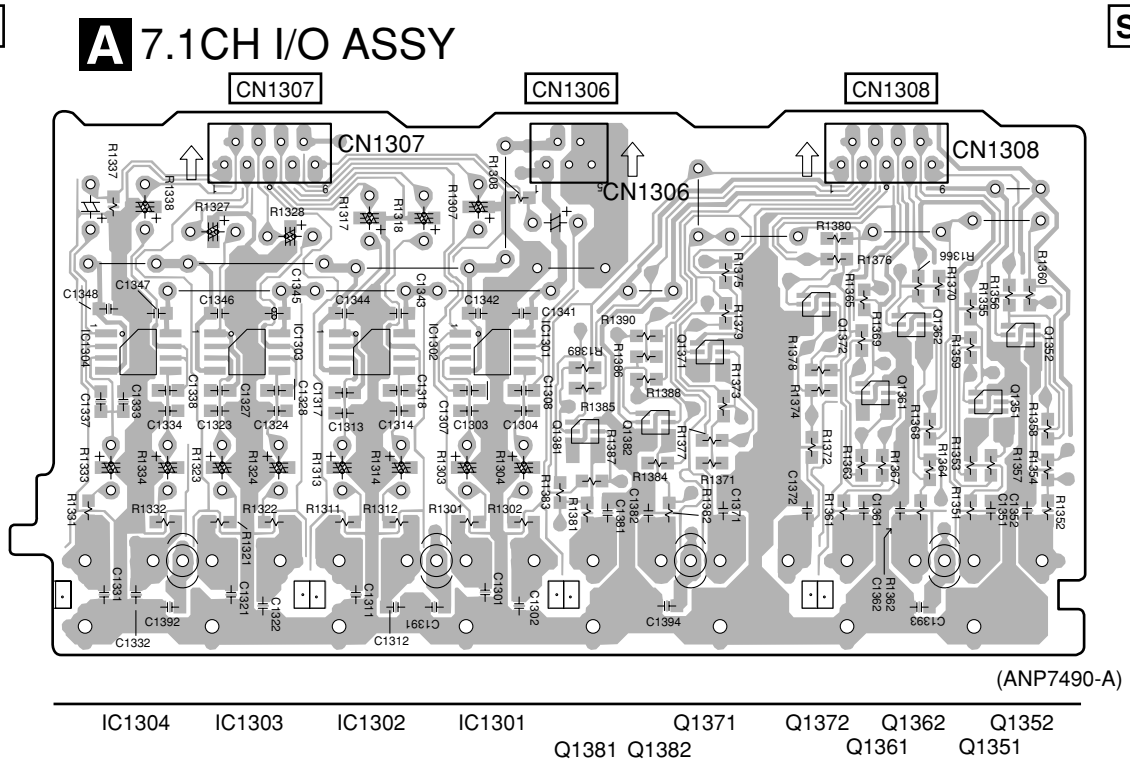
4.1 7.1CH I/O ASSY

SIDE A **SIDE A**

• For VSX-AX5i-S



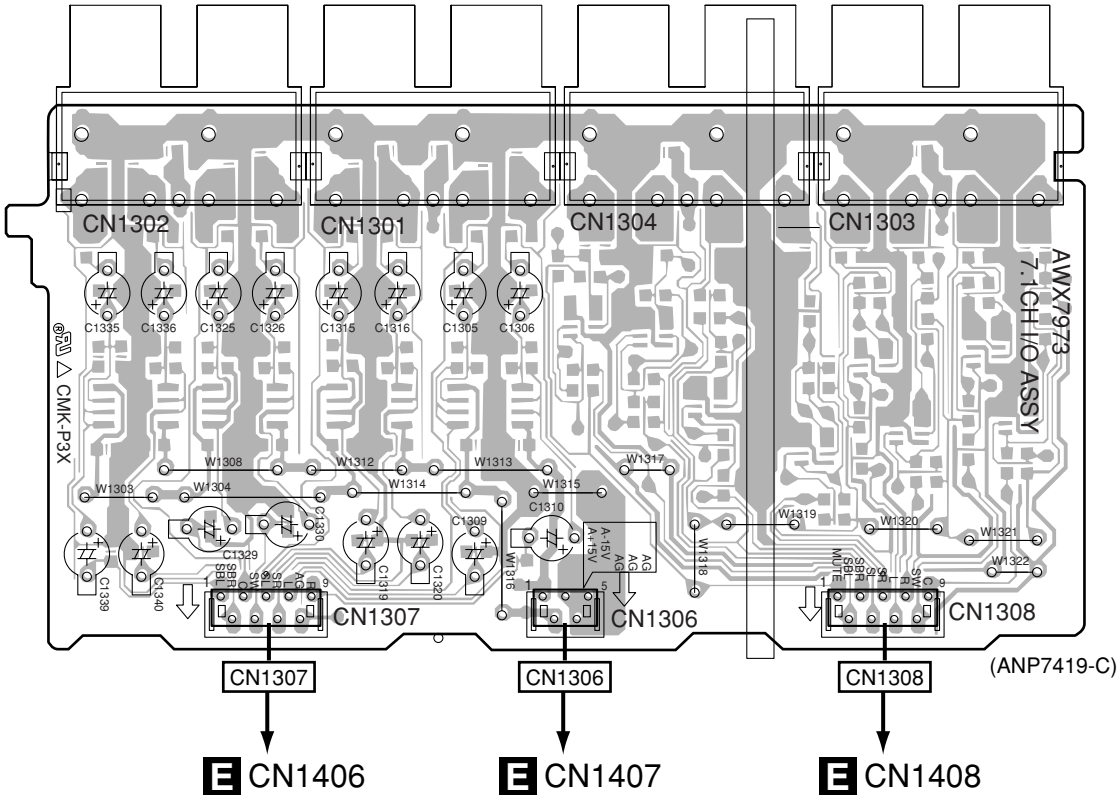
SIDE B **SIDE B**



SIDE A **SIDE A**

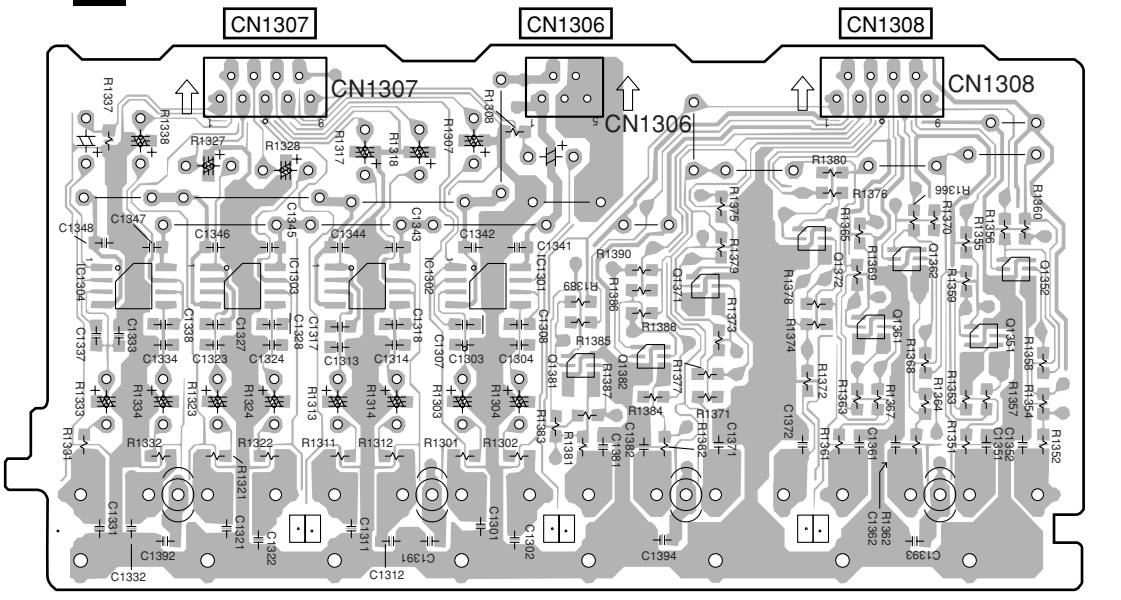
• **For VSX-AX3-S, -K**

A 7.1CH I/O ASSY



SIDE B **SIDE B**

A 7.1CH I/O ASSY



IC1304 IC1303 IC1302 IC1301 Q1371 Q1372 Q1362 Q1352
Q1381 Q1382 Q1361 Q1351

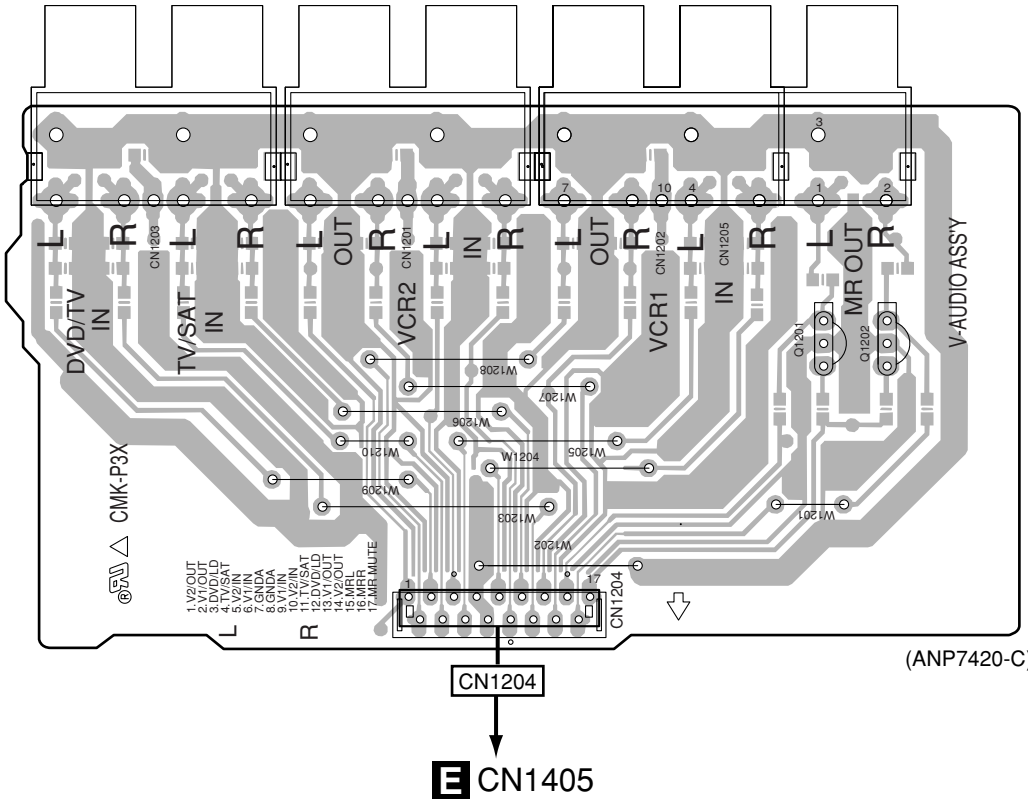
A A

4.2 V-AUDIO IN ASSY

SIDE A

SIDE A

B V-AUDIO IN ASSY



(ANP7420-C)

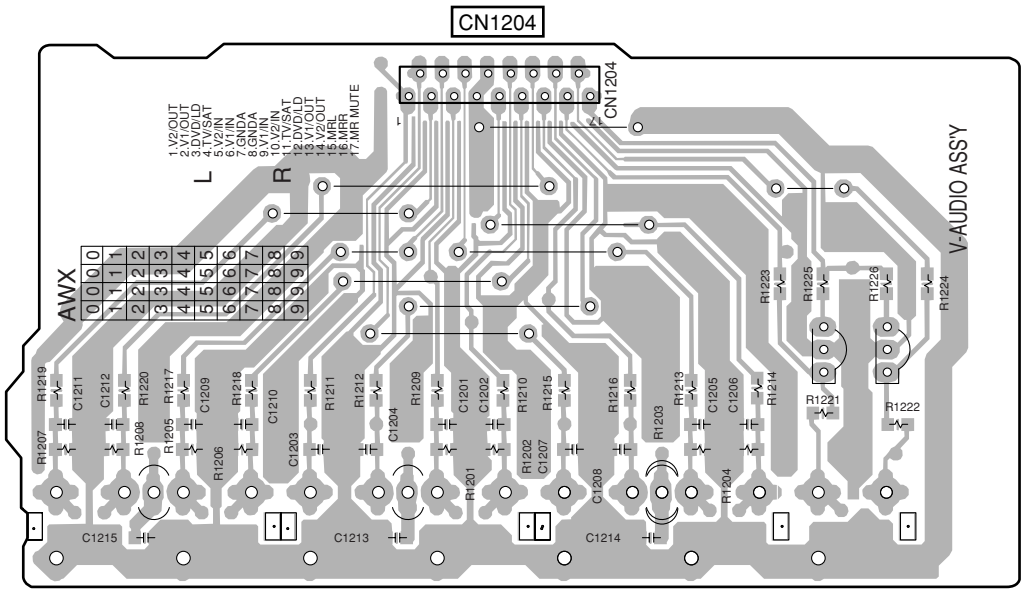
CN1204

E CN1405

SIDE B

SIDE B

B V-AUDIO IN ASSY



(ANP7420-C)

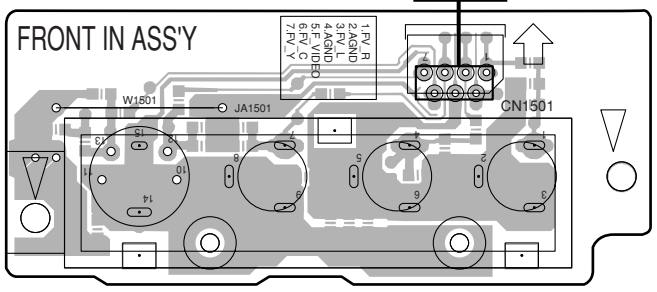
4.3 FRONT IN and OPTICAL IN ASSYS

SIDE A

SIDE A

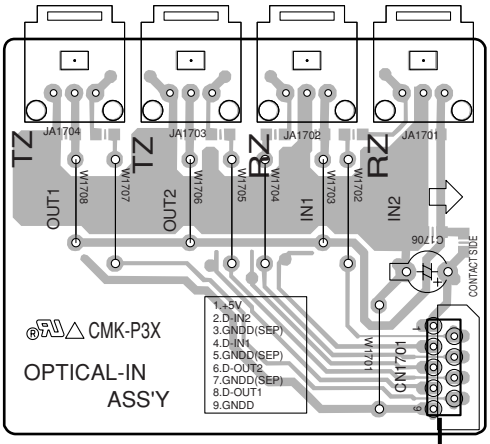
U CN3005

C FRONT IN ASSY



(ANP7420-C)

D OPTICAL IN ASSY



(ANP7420-C)

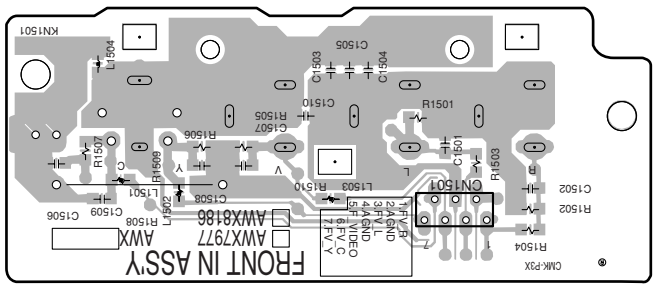
CN1701

H CN1801

SIDE B

SIDE B

C FRONT IN ASSY

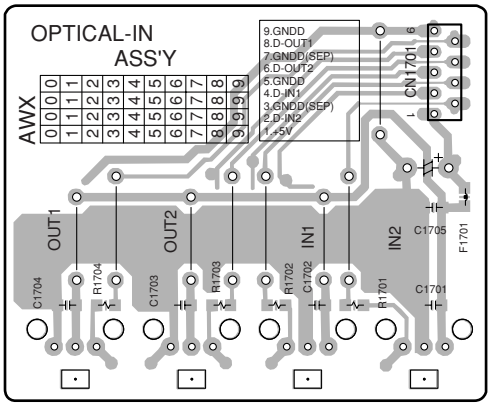


(ANP7420-C)

CN1501

D OPTICAL IN ASSY

CN1701



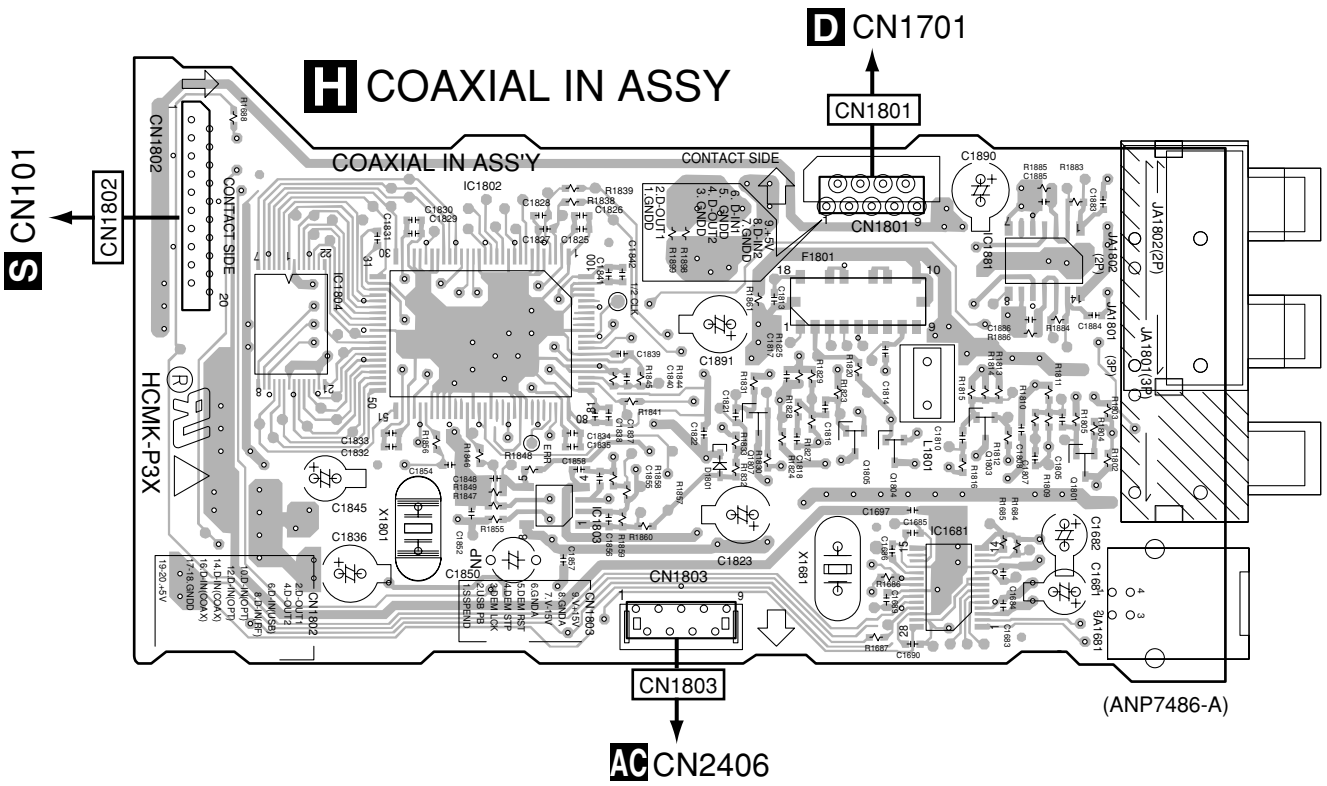
(ANP7420-C)

C **D**

C **D**

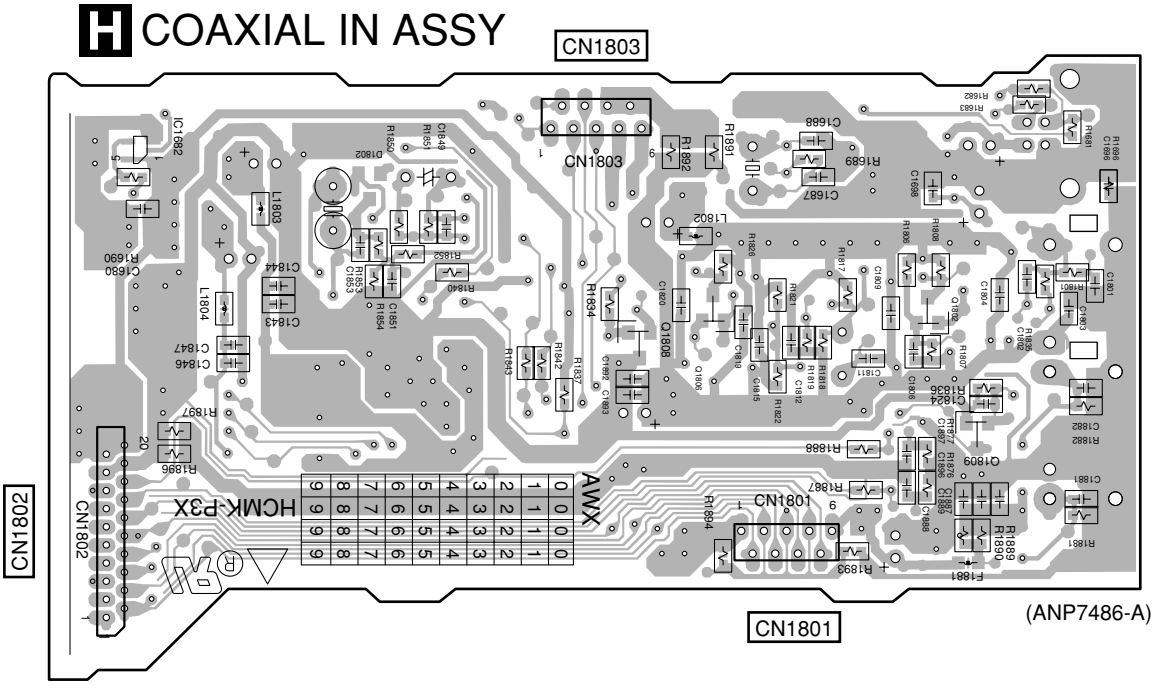
4.4 COAXIAL IN ASSY

SIDE A



IC1804 IC1802 IC1803 Q1807 Q1805 Q1804 Q1803 Q1801 IC1881 IC1681

SIDE B

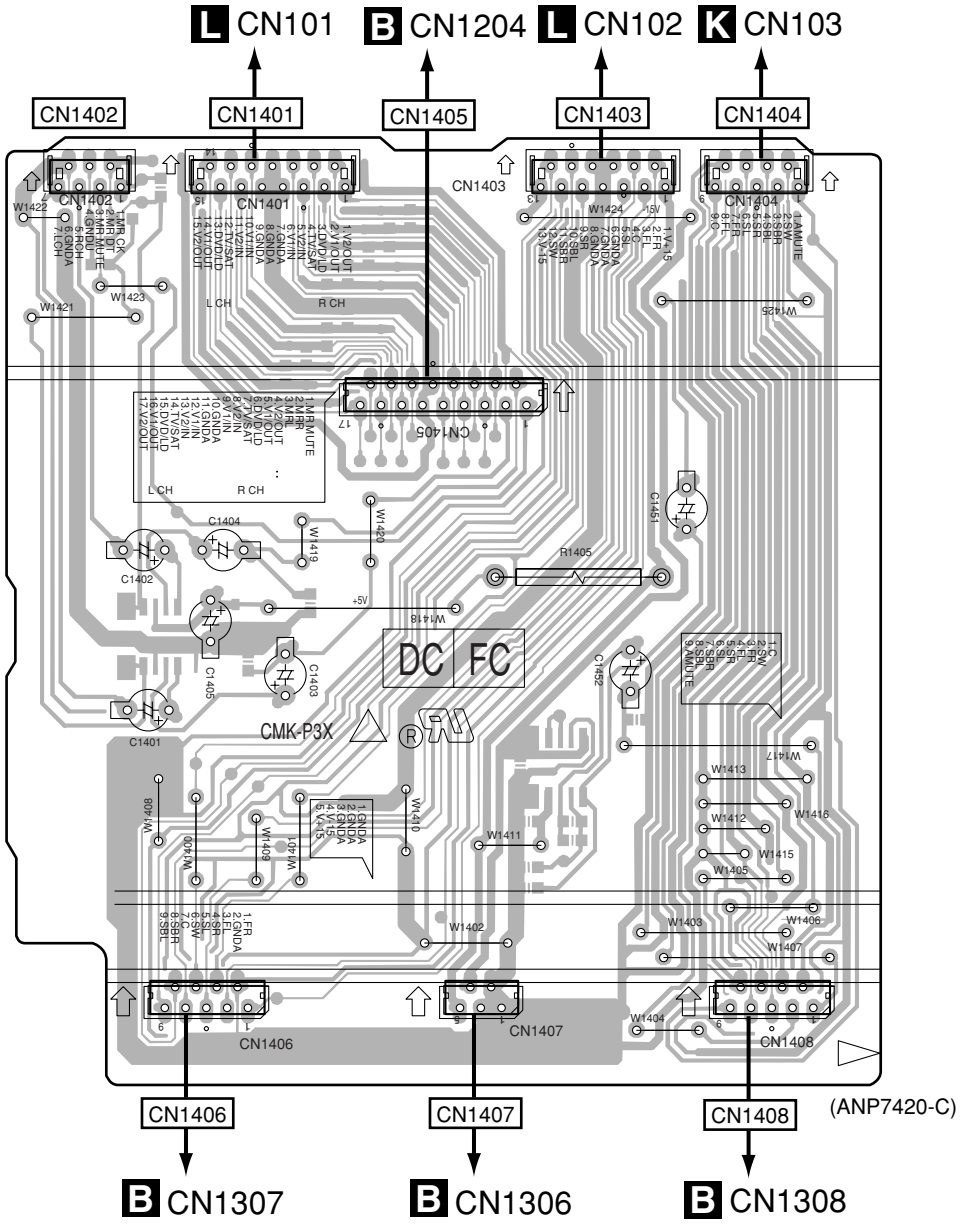


IC1682 Q1808 Q1806 Q1802 Q1809

4.5 INPUT CONNECT ASSY

SIDE A

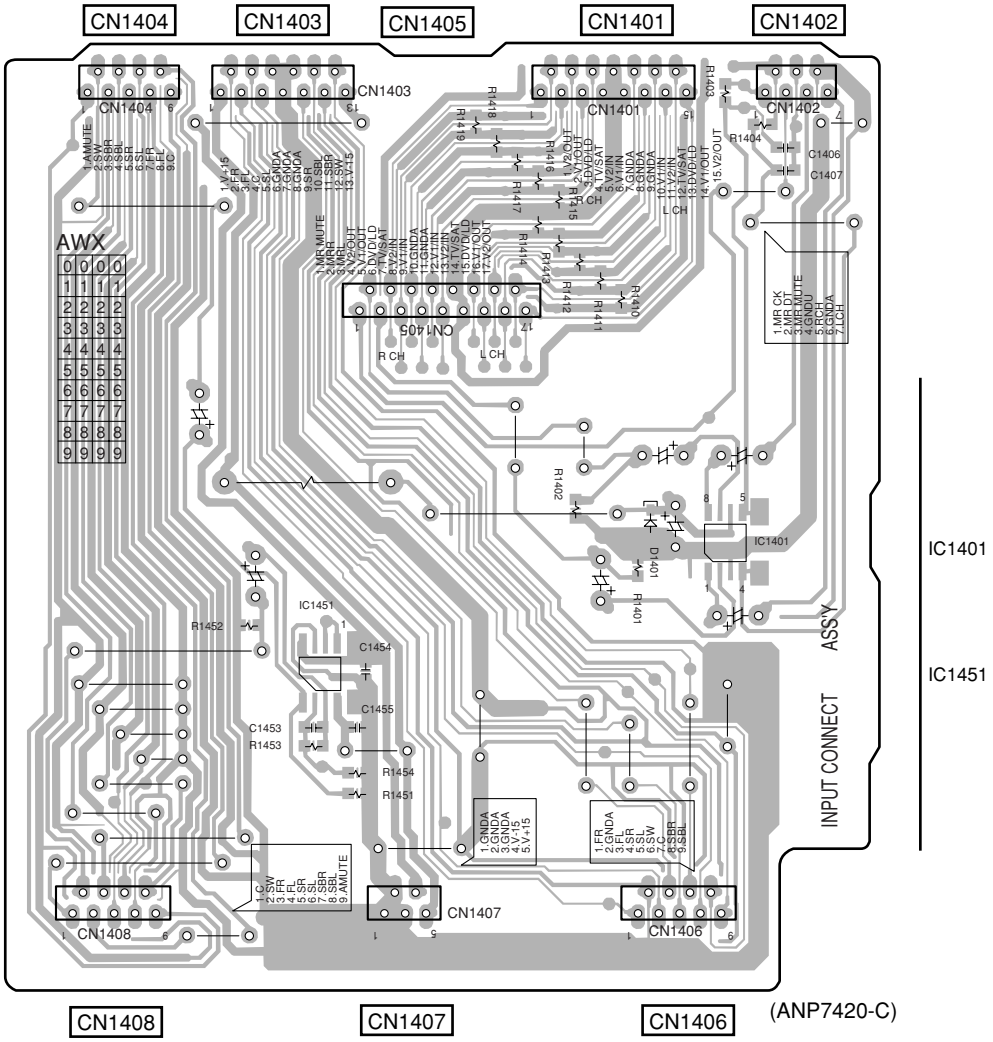
SIDE A



SIDE B

SIDE B

E INPUT CONNECT ASSY



CN1408 CN1407 CN1406

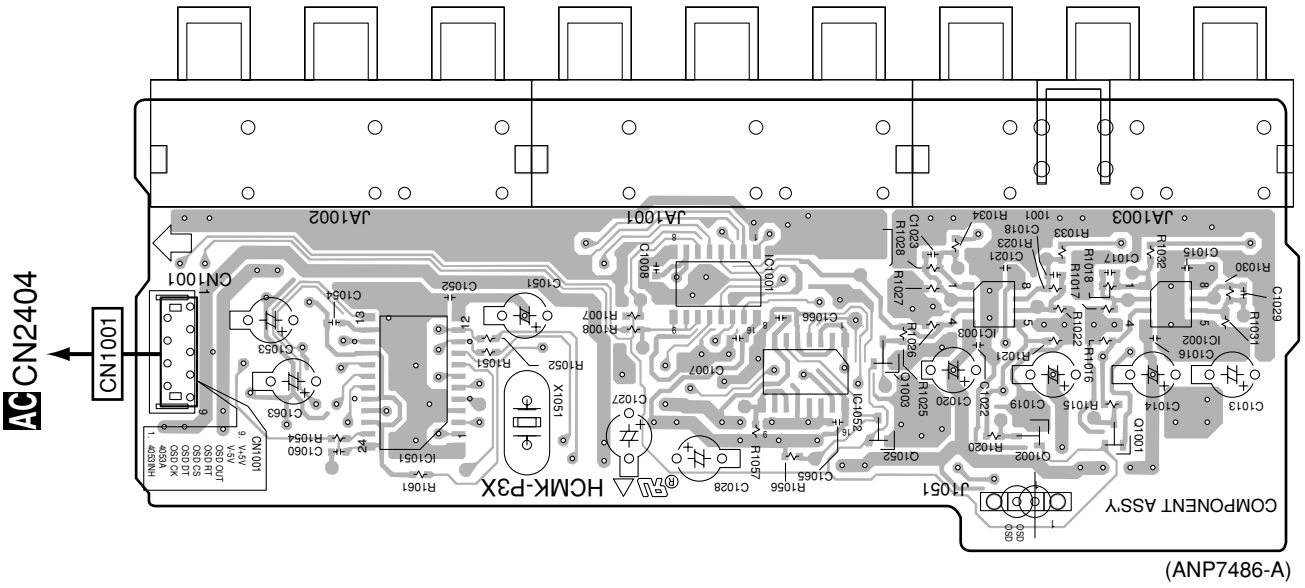
E E

5 6 7 8

4.6 COMPONENT ASSY

SIDE A **SIDE A**

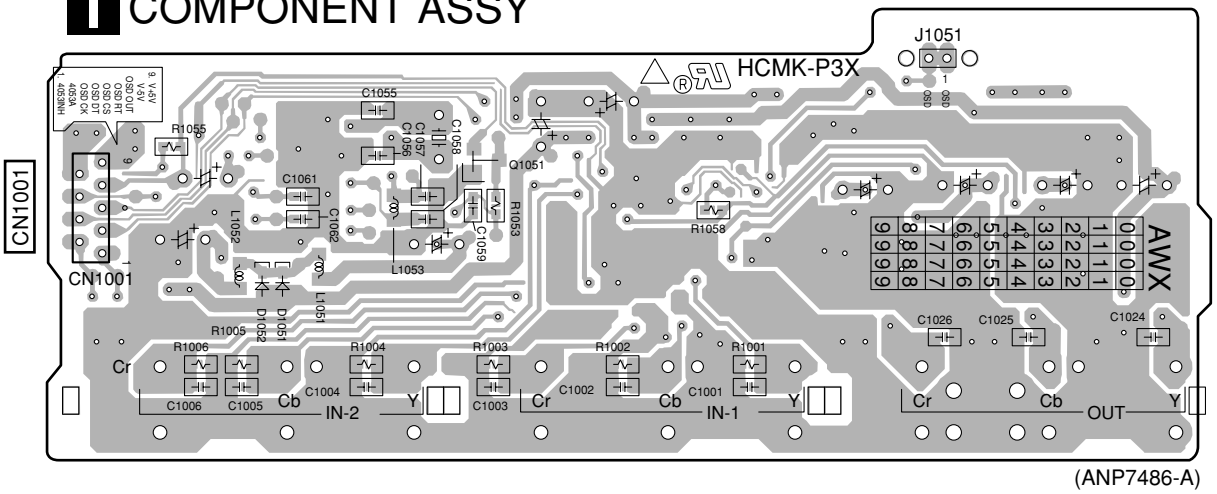
COMPONENT ASSY



IC1051 IC1001 IC1052 Q1003 Q1052 IC1003 Q1002 IC1002 Q1001

SIDE B **SIDE B**

COMPONENT ASSY

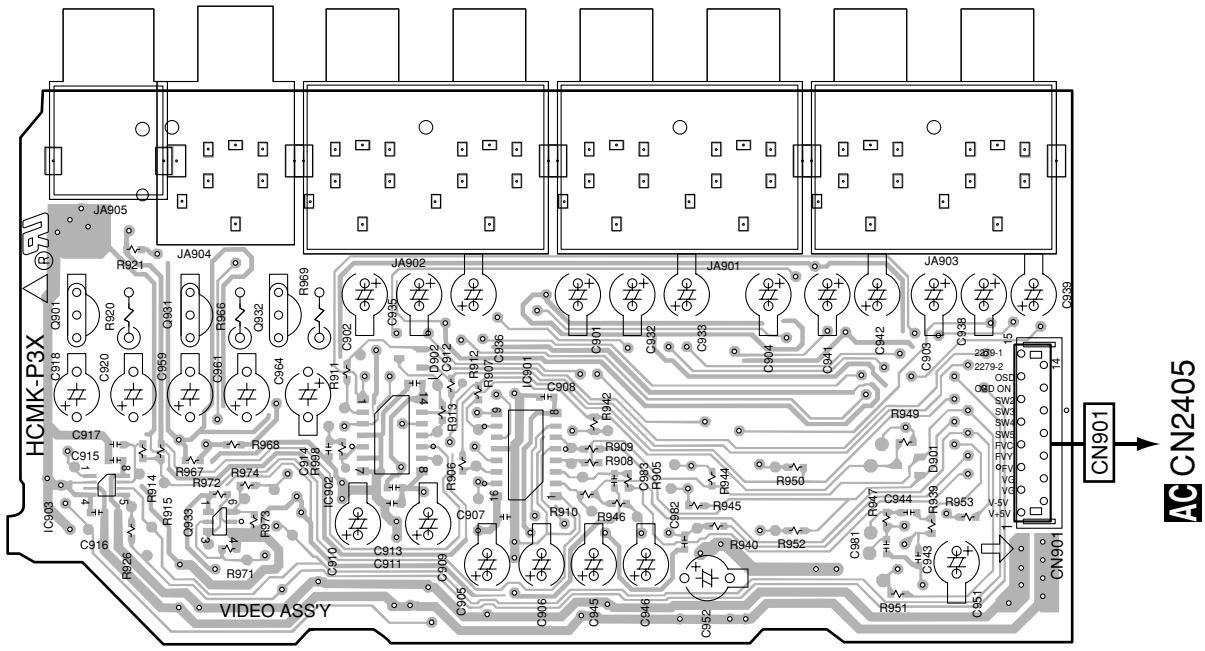


Q1051

4.7 VIDEO ASSY

SIDE A **SIDE A**

K VIDEO ASSY

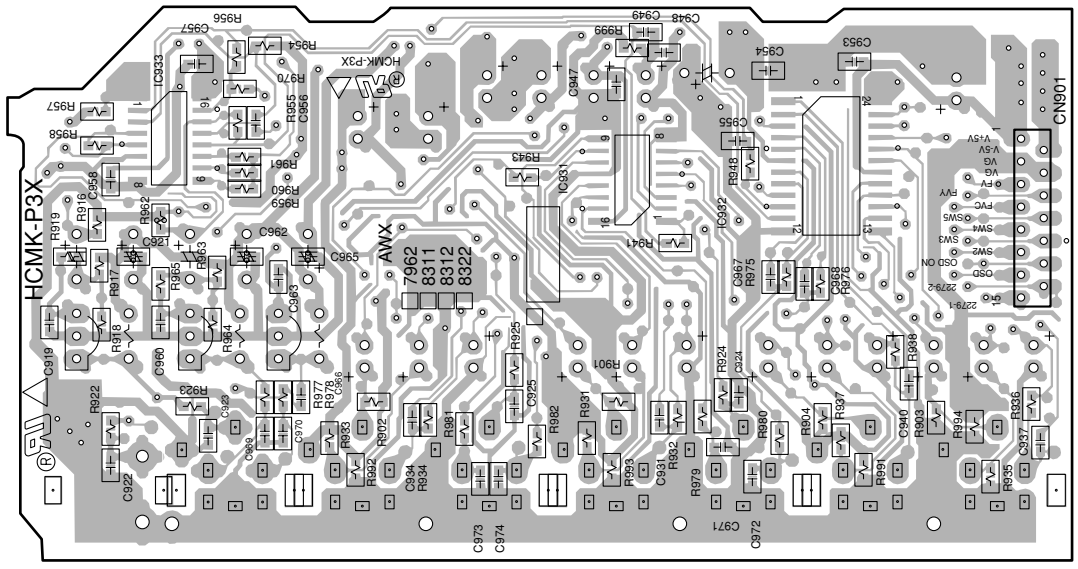


(ANP7486-A)

Q901 Q931 Q932 IC902 IC901
IC903 Q933

SIDE B **SIDE B**

K VIDEO ASSY

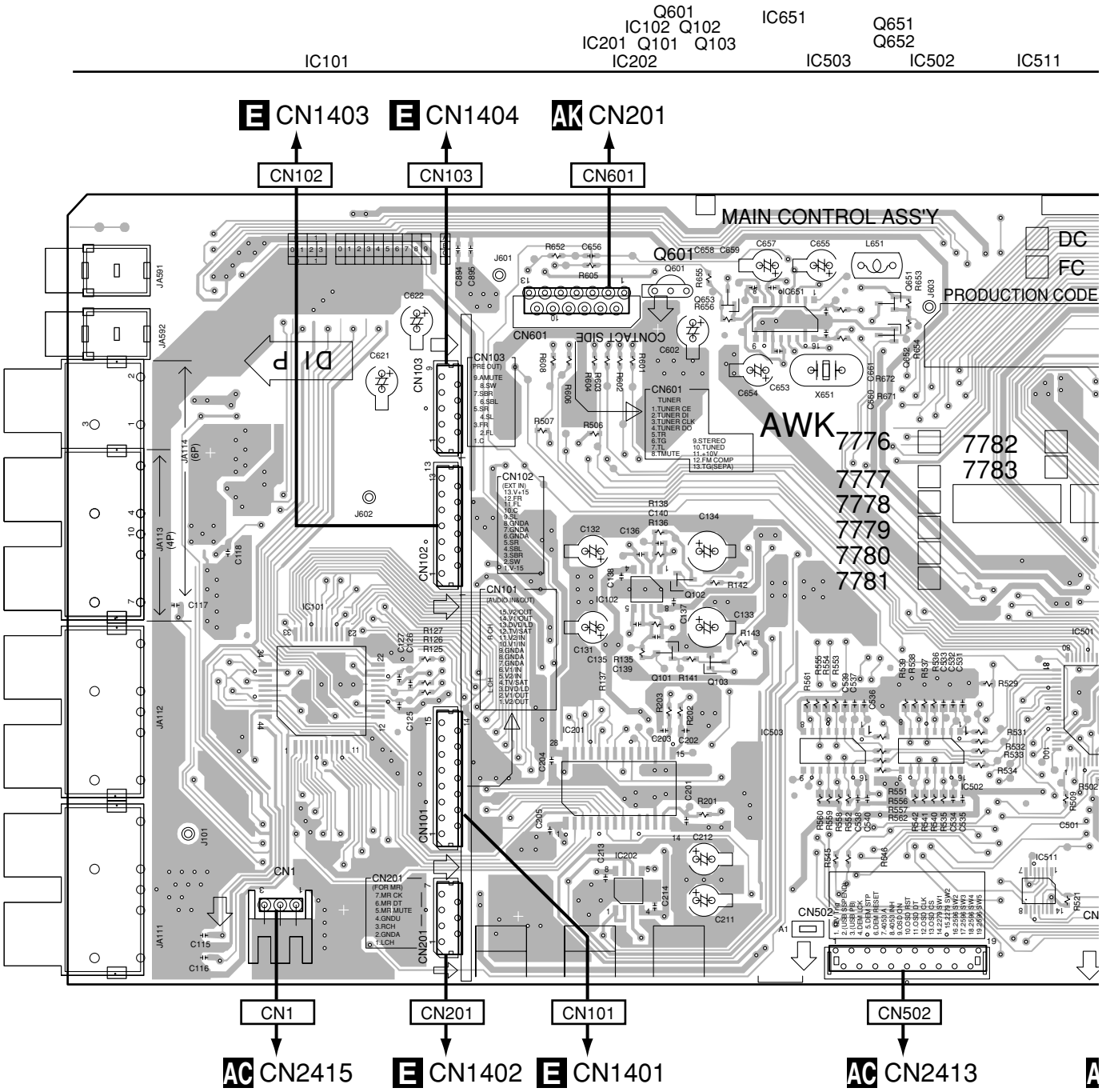


(ANP7486-A)

IC933 IC931 IC932

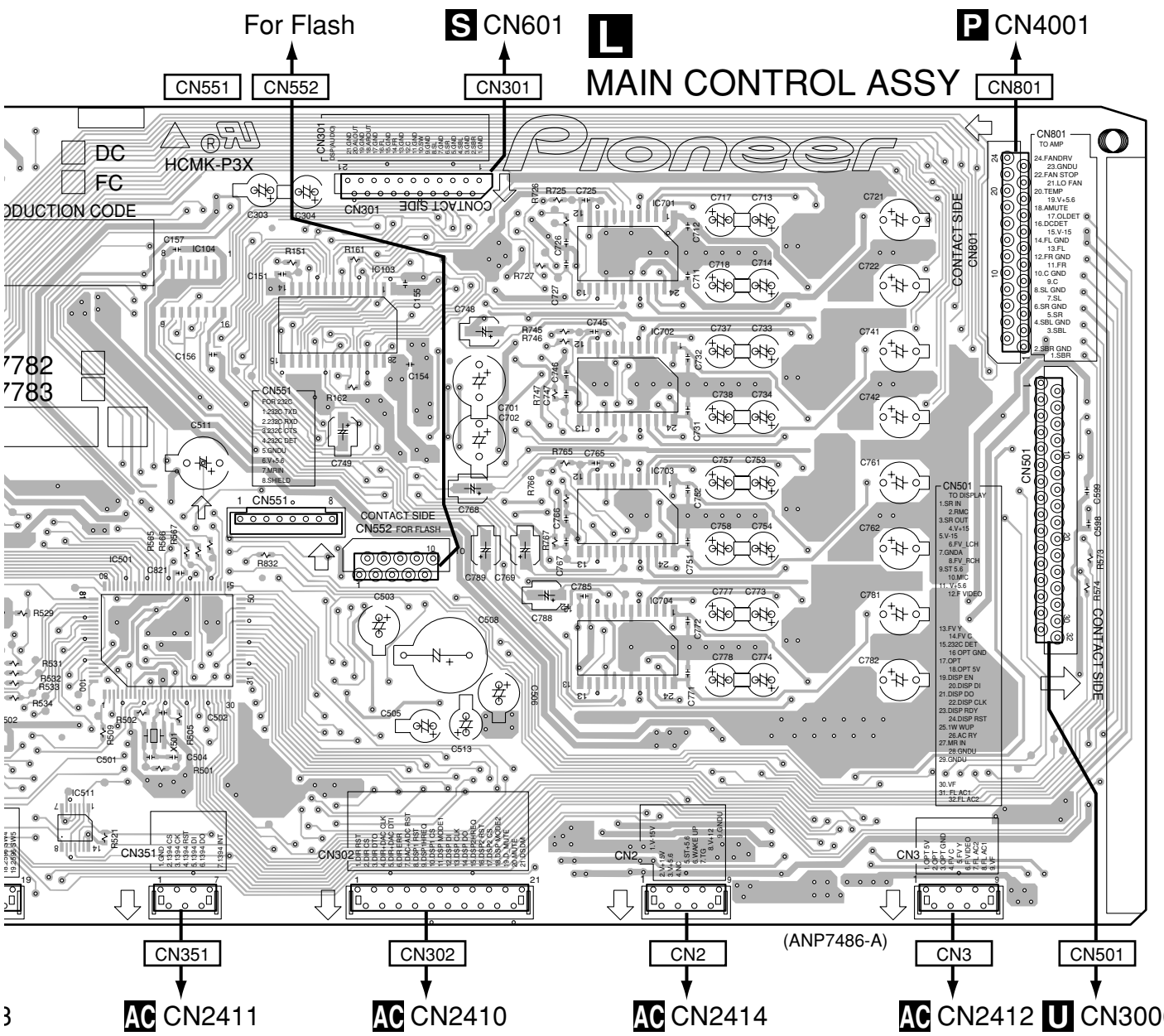
4.8 MAIN CONTROL ASSY

SIDE A



SIDE A

IC104
IC511 IC501 IC103 IC702 IC701
IC704 IC703

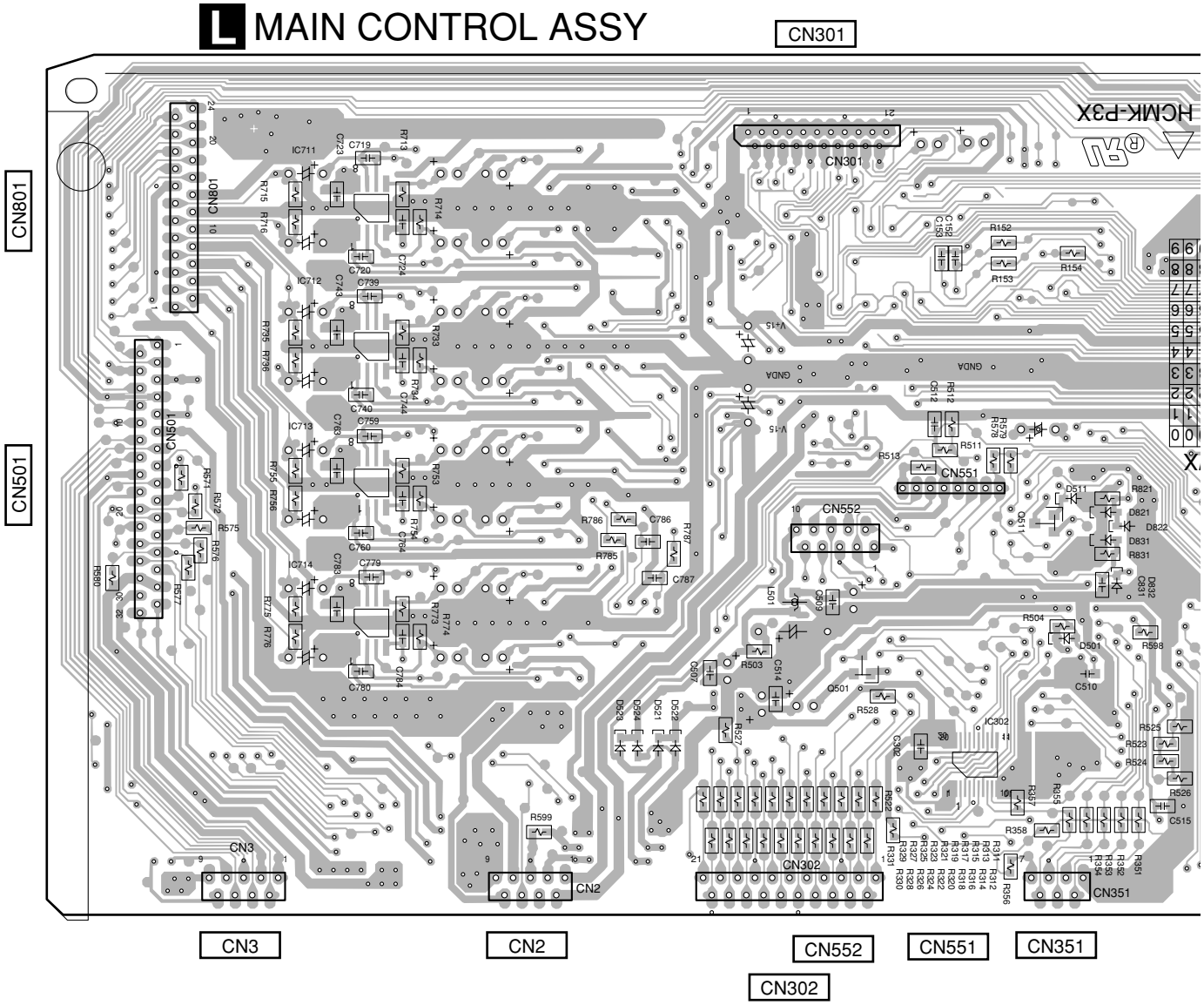


SIDE B

IC711
IC712
IC713
IC714

Q501 IC302 Q511

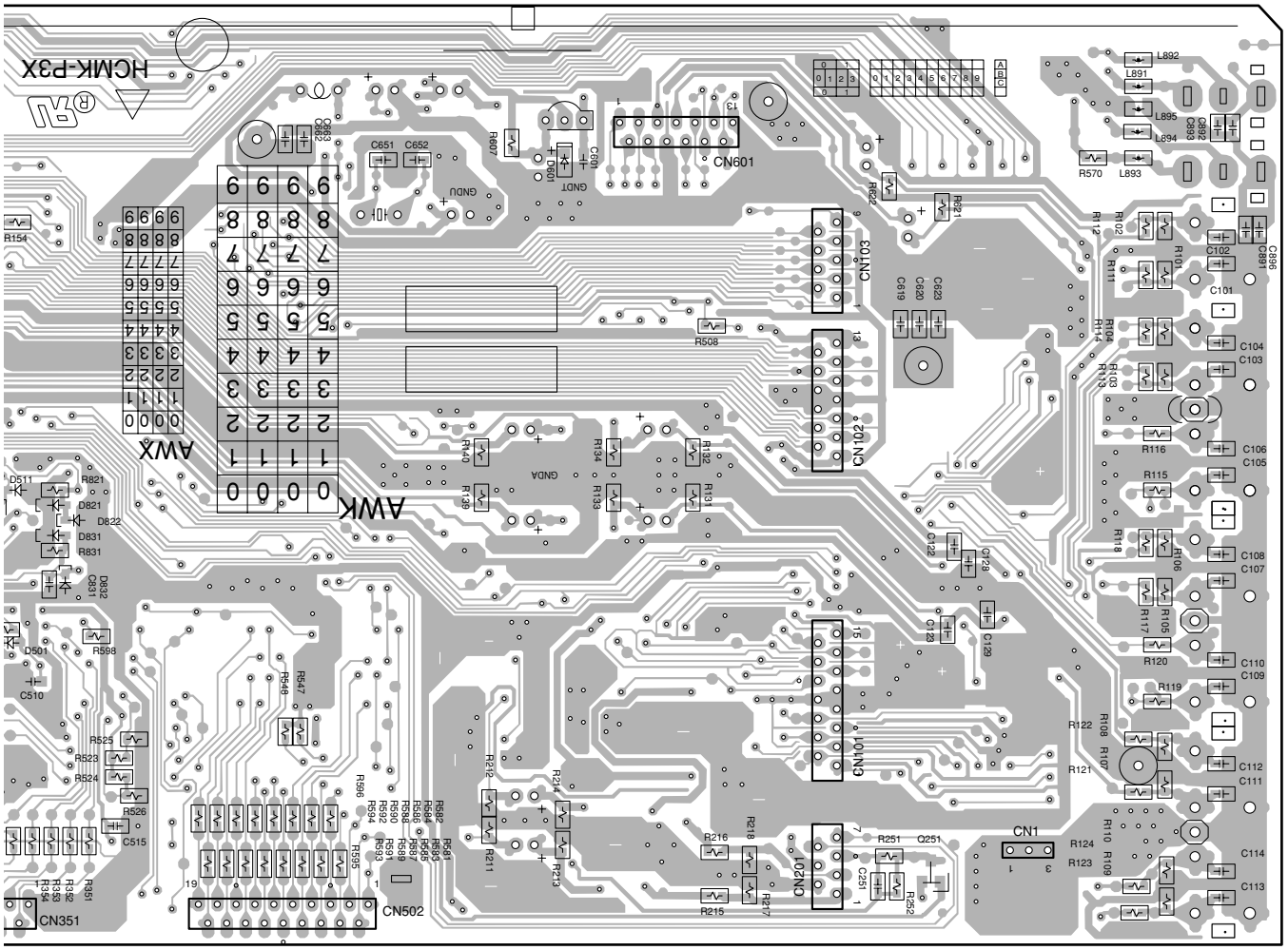
L MAIN CONTROL ASSY



SIDE B

1 Q601 Q251

CN601



CN502 CN1 (ANP7486-A)

CN103 CN102 CN101 CN201

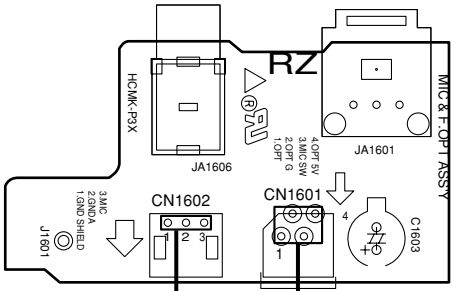
A B C D E F

4.9 MIC & F. OPT IN, MIC AMP and DSP CONNECTION ASSYS

SIDE A

SIDE A

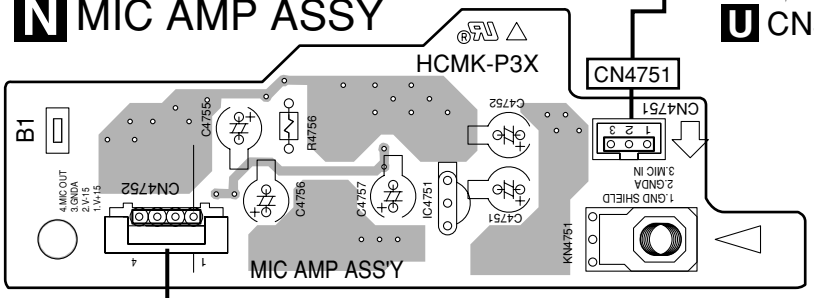
M MIC & F.OPT IN ASSY



CN1602 CN1601

U CN3004

N MIC AMP ASSY



CN4752

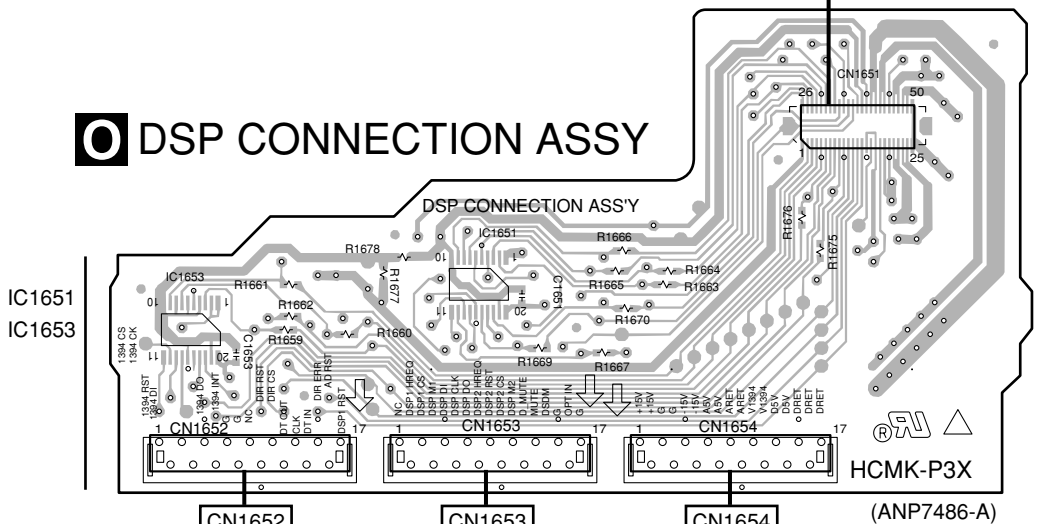
IC4751

U 3008

S CN102

CN1651

O DSP CONNECTION ASSY



CN1652 CN1653 CN1654

AC CN2407 AC CN2408 AC CN2409

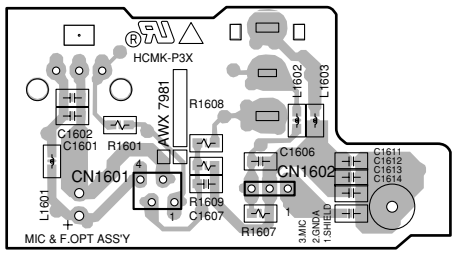
M N O

M N O

SIDE B

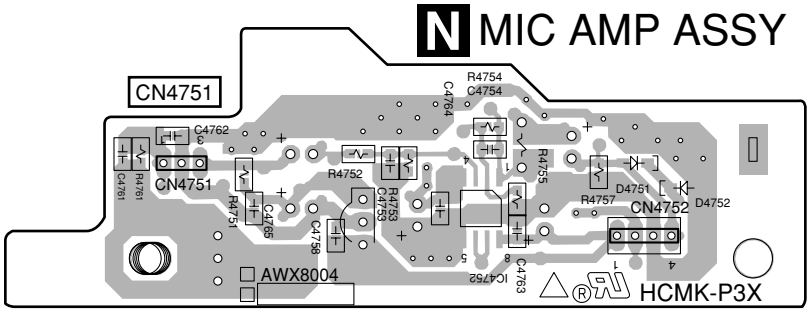
SIDE B

M MIC & F.OPT IN ASSY



CN1601 CN1602 (ANP7486-A)

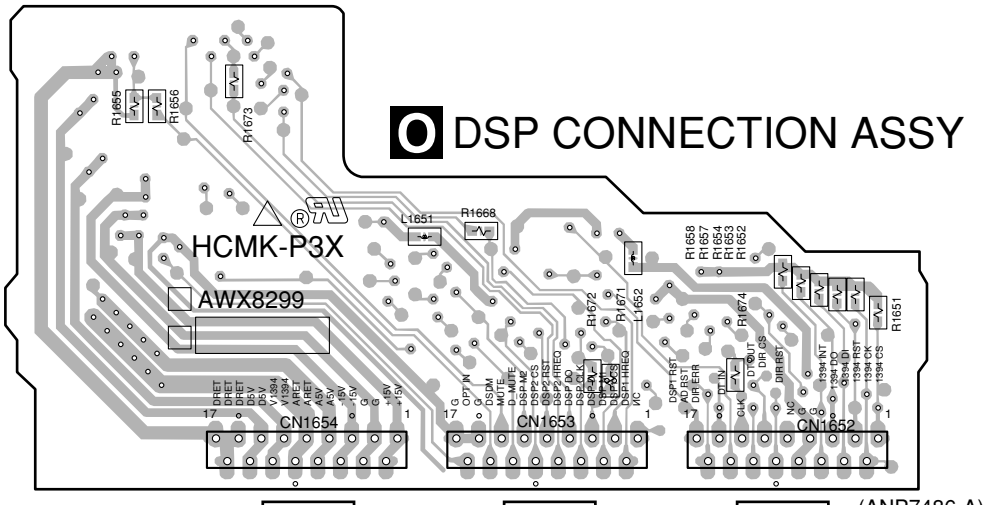
N MIC AMP ASSY



CN4752 (ANP7486-A)

IC4752

O DSP CONNECTION ASSY



CN1654 CN1653 CN1652 (ANP7486-A)

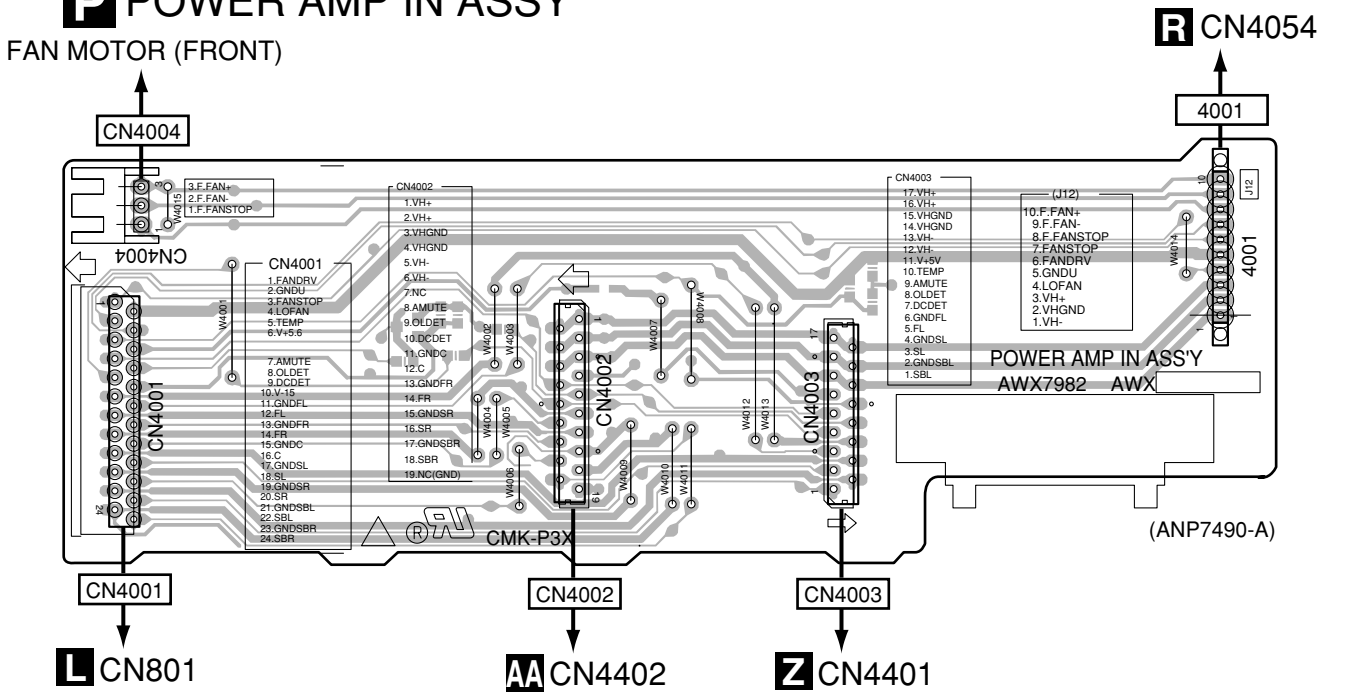
M N O

M N O

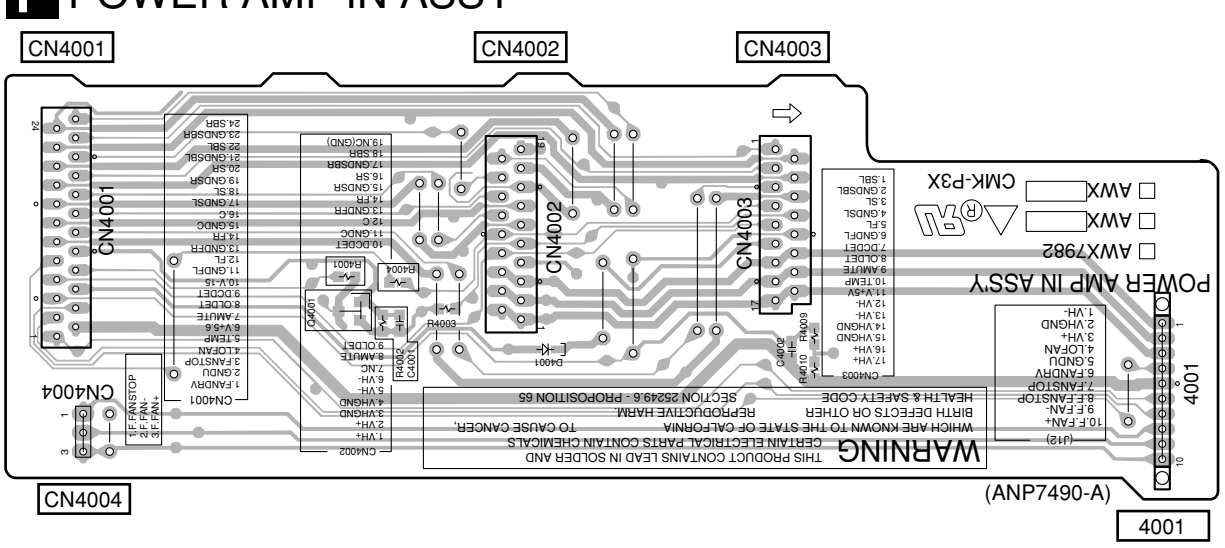
4.10 POWER AMP IN ASSY

• **For VSX-AX5i-S**

SIDE A



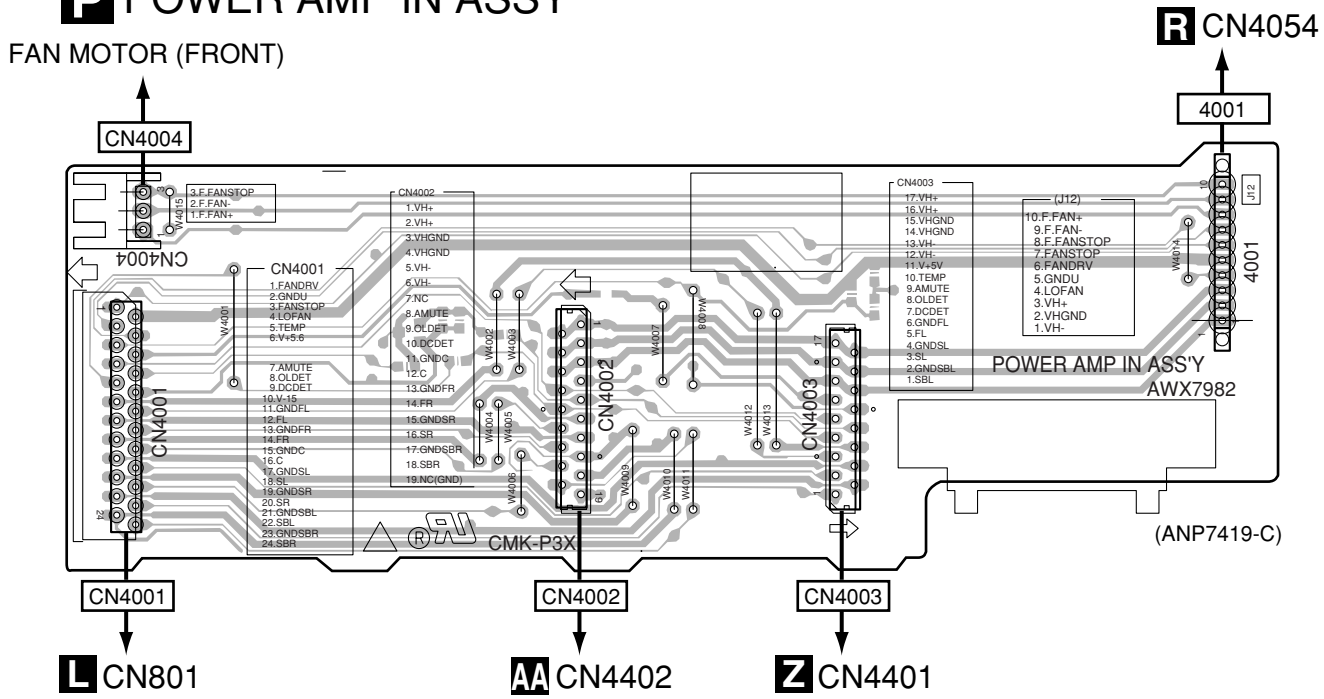
SIDE B



• For VSX-AX3-S, -K

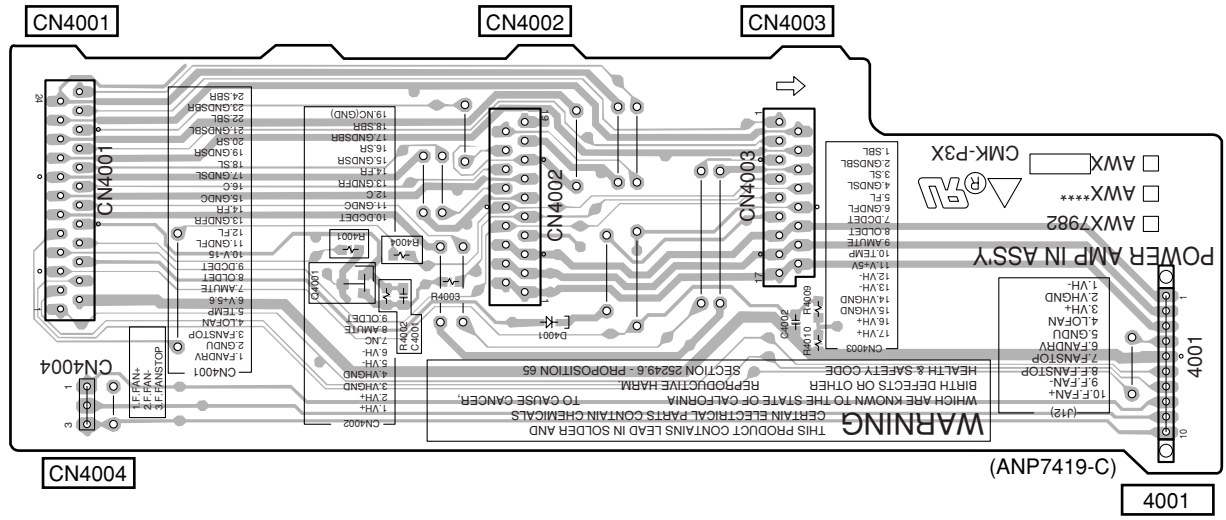
SIDE A **SIDE A**

P POWER AMP IN ASSY



SIDE B **SIDE B**

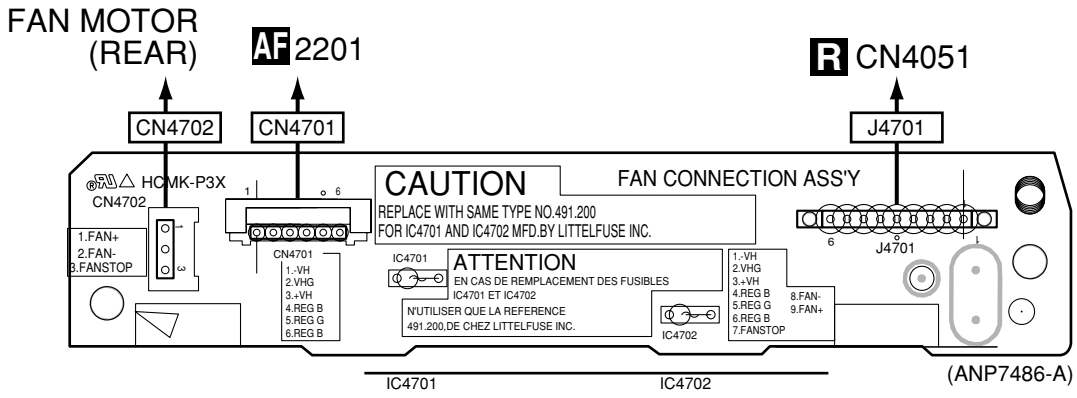
P POWER AMP IN ASSY



4.11 FAN CONNECTION ASSY

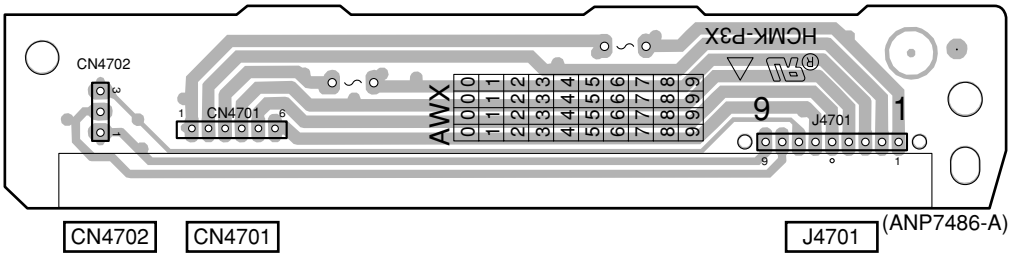
SIDE A **SIDE A**

Q FAN CONNECTION ASSY



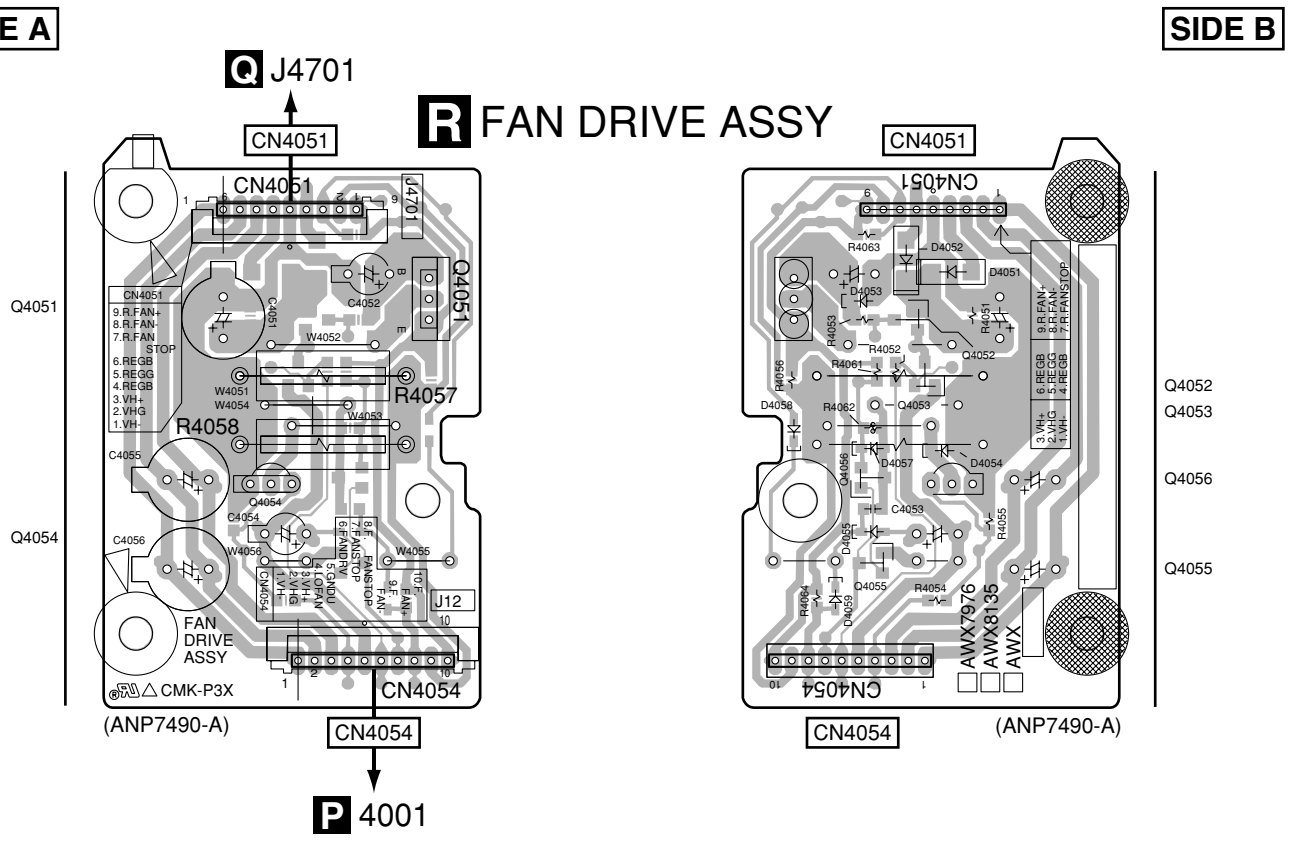
SIDE B **SIDE B**

Q FAN CONNECTION ASSY

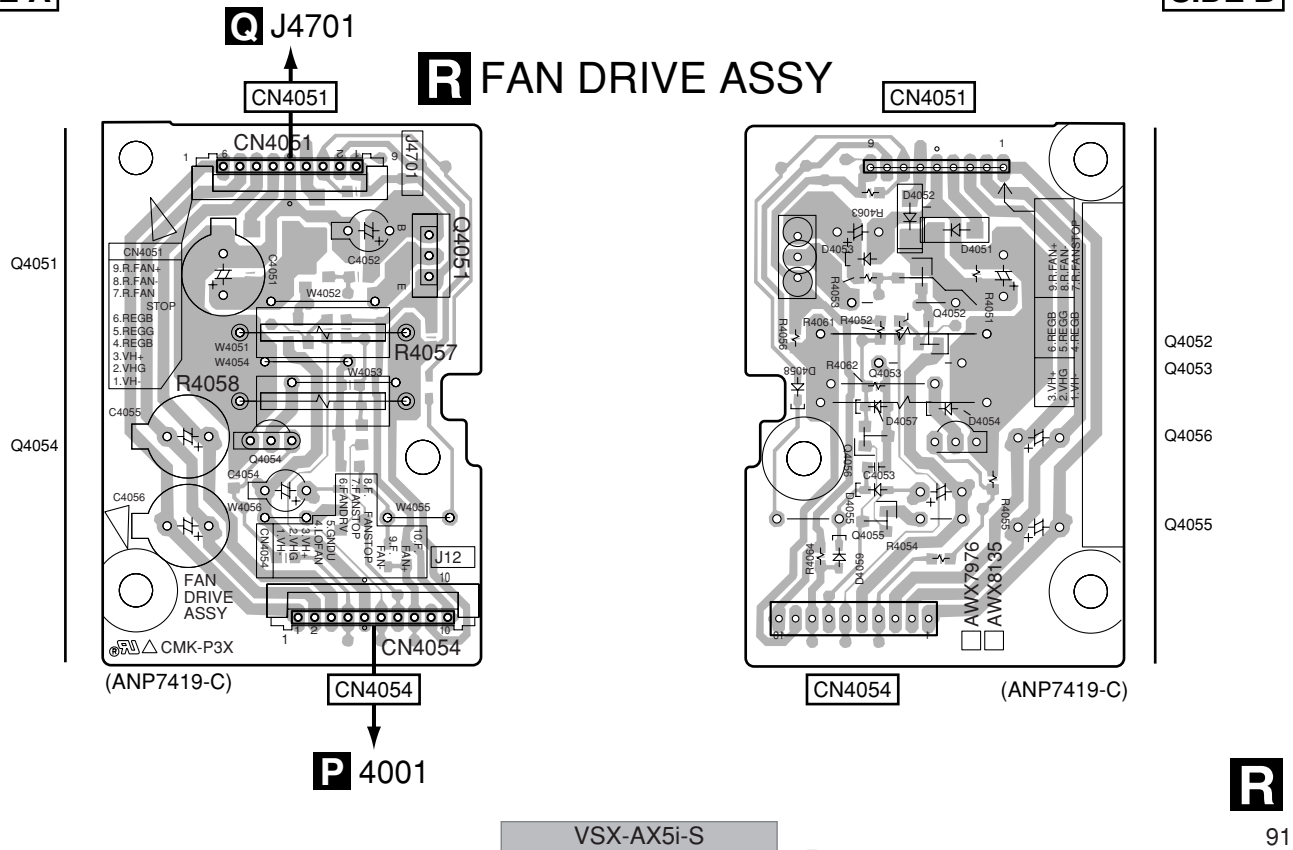


4.12 FAN DRIVE ASSY

• For VSX-AX5i-S



• For VSX-AX3-S, -K

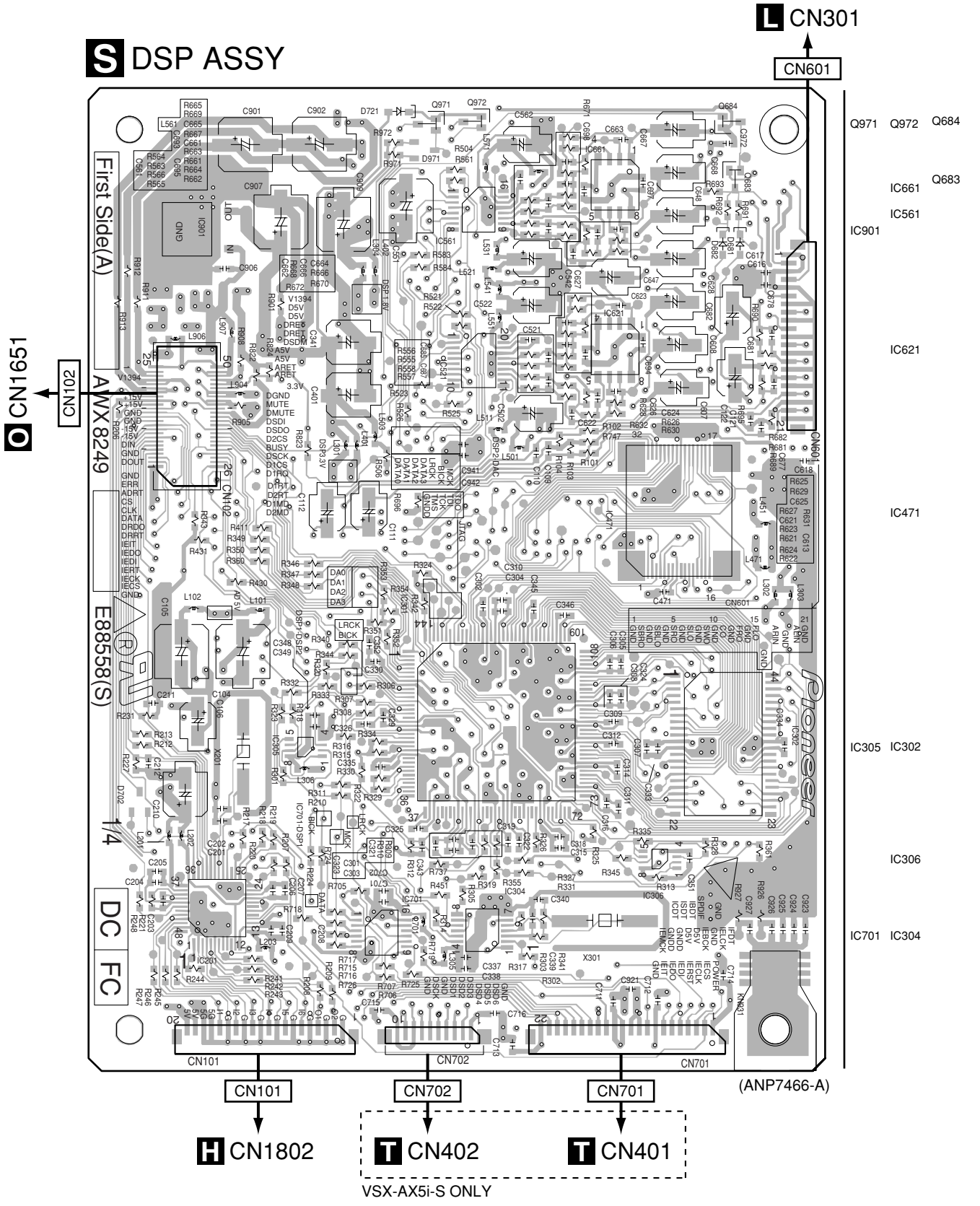


4.13 DSP ASSY

SIDE A

SIDE A

- This diagram has four layers.
  In the two middle layers, mainy Vcc and GND are connected.

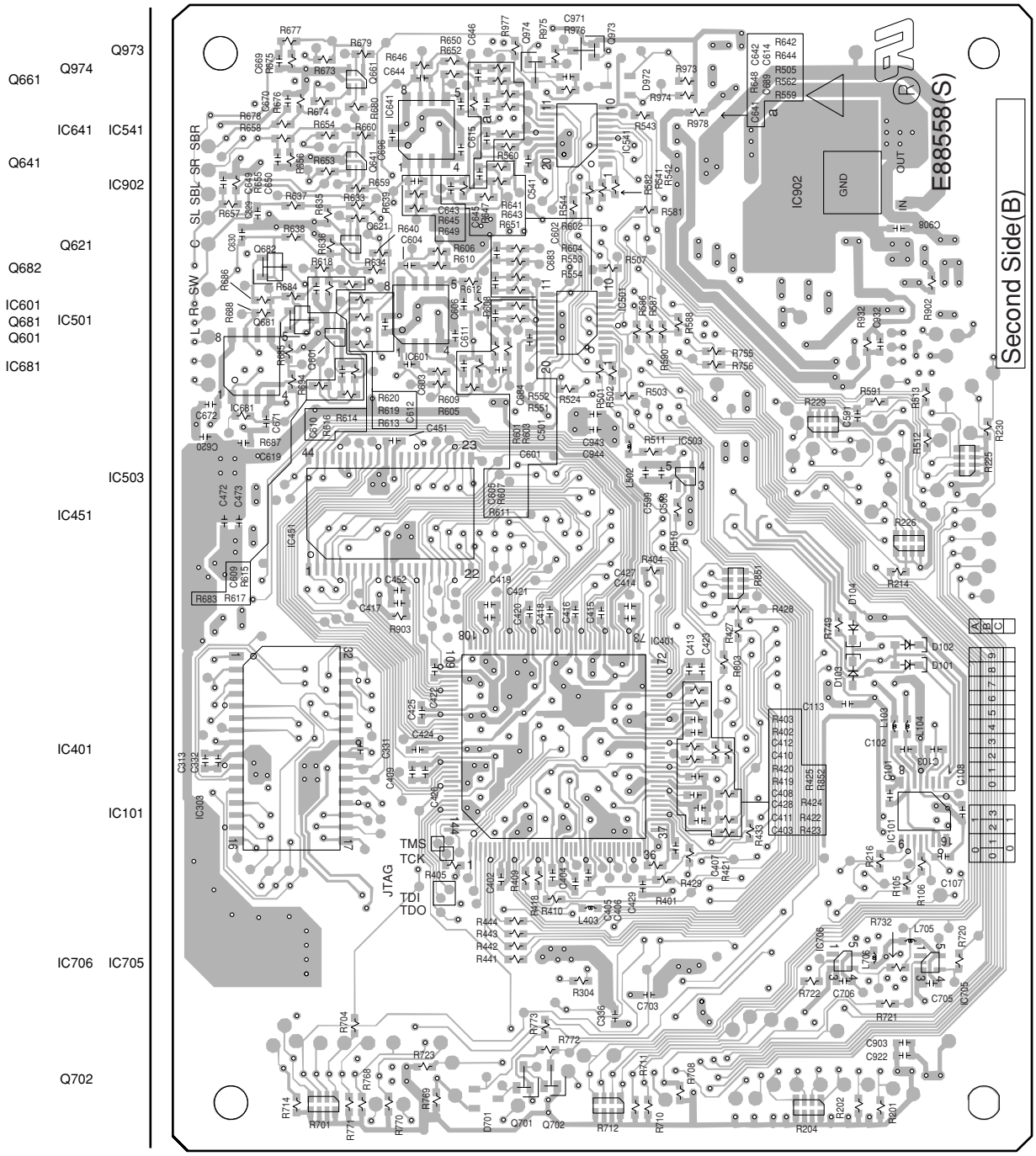


SIDE B

SIDE B

- This diagram has four layers.
  In the two middle layers, mainy Vcc and GND are connected.

S DSP ASSY

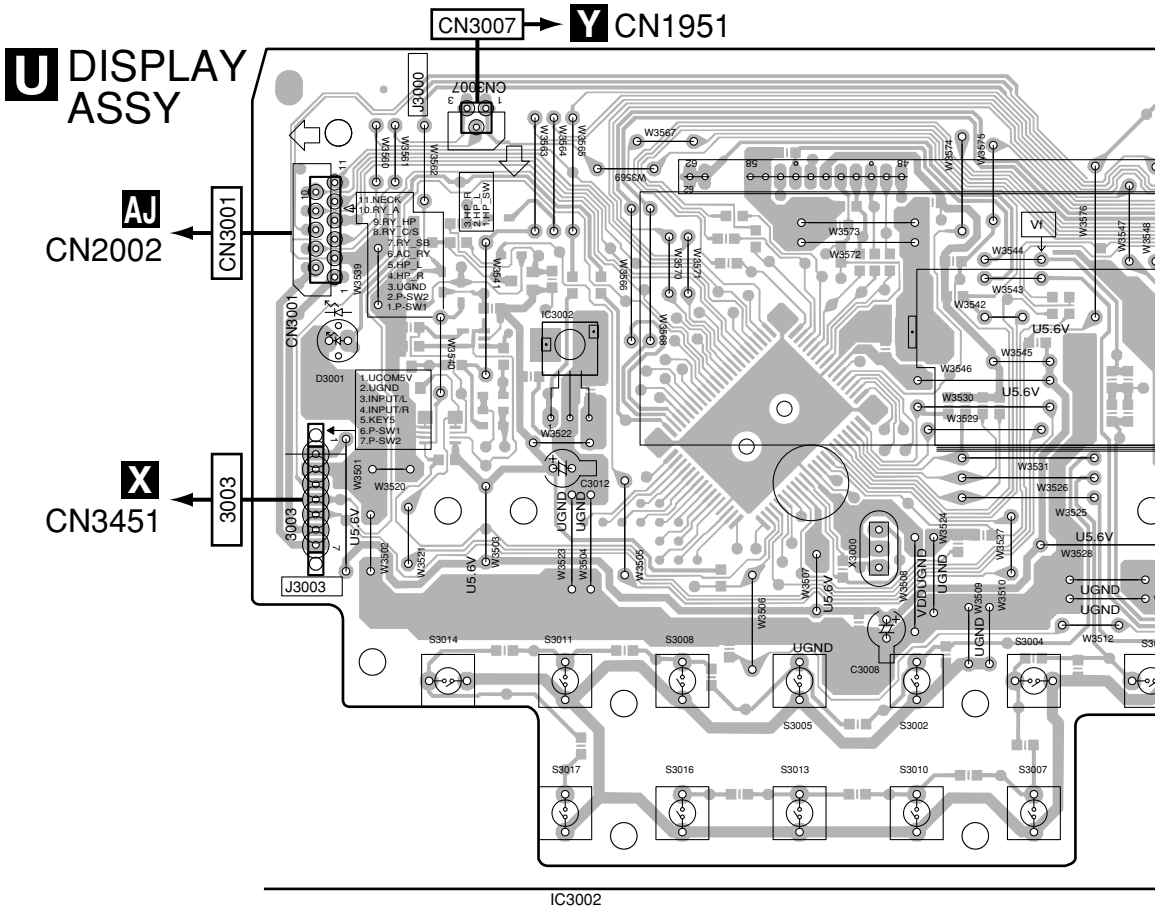


(ANP7466-A)

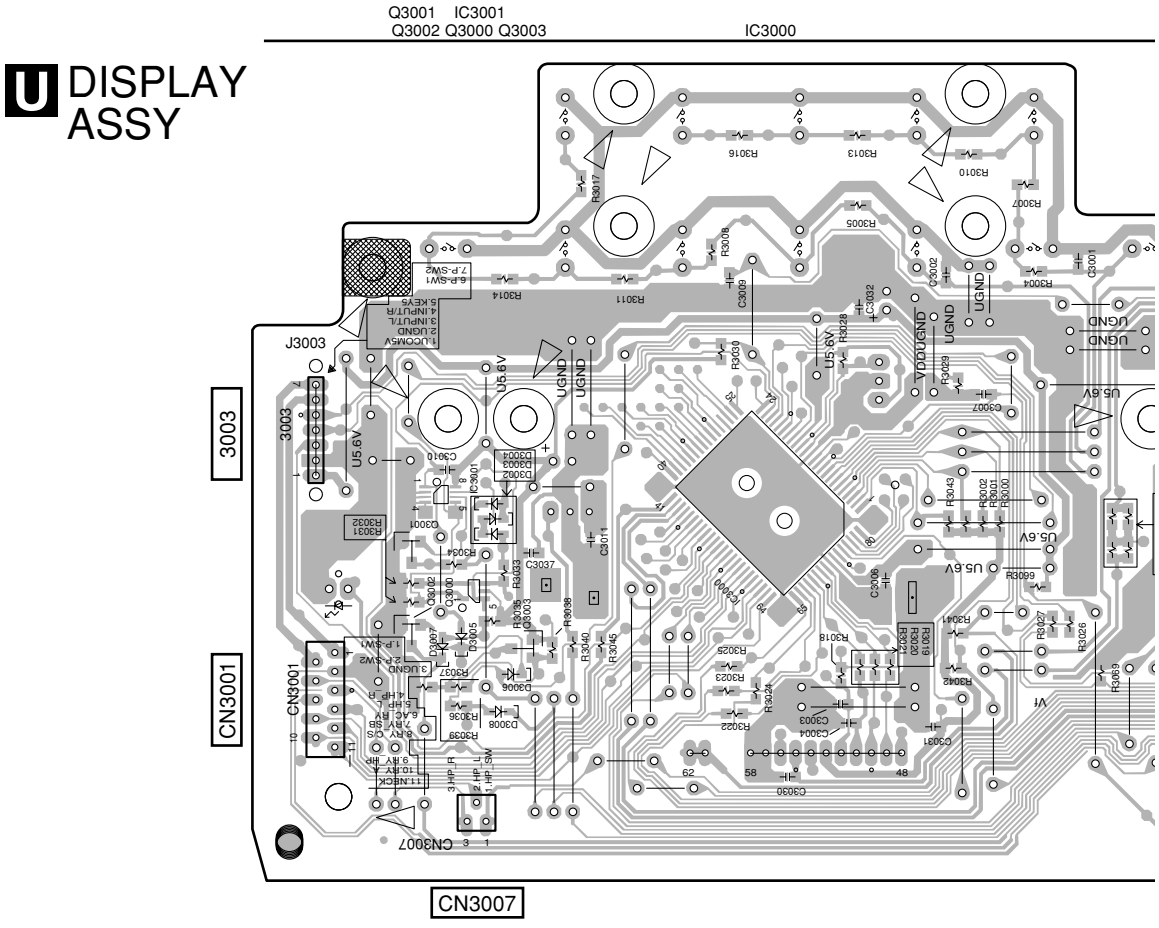
4.14 DISPLAY ASSY

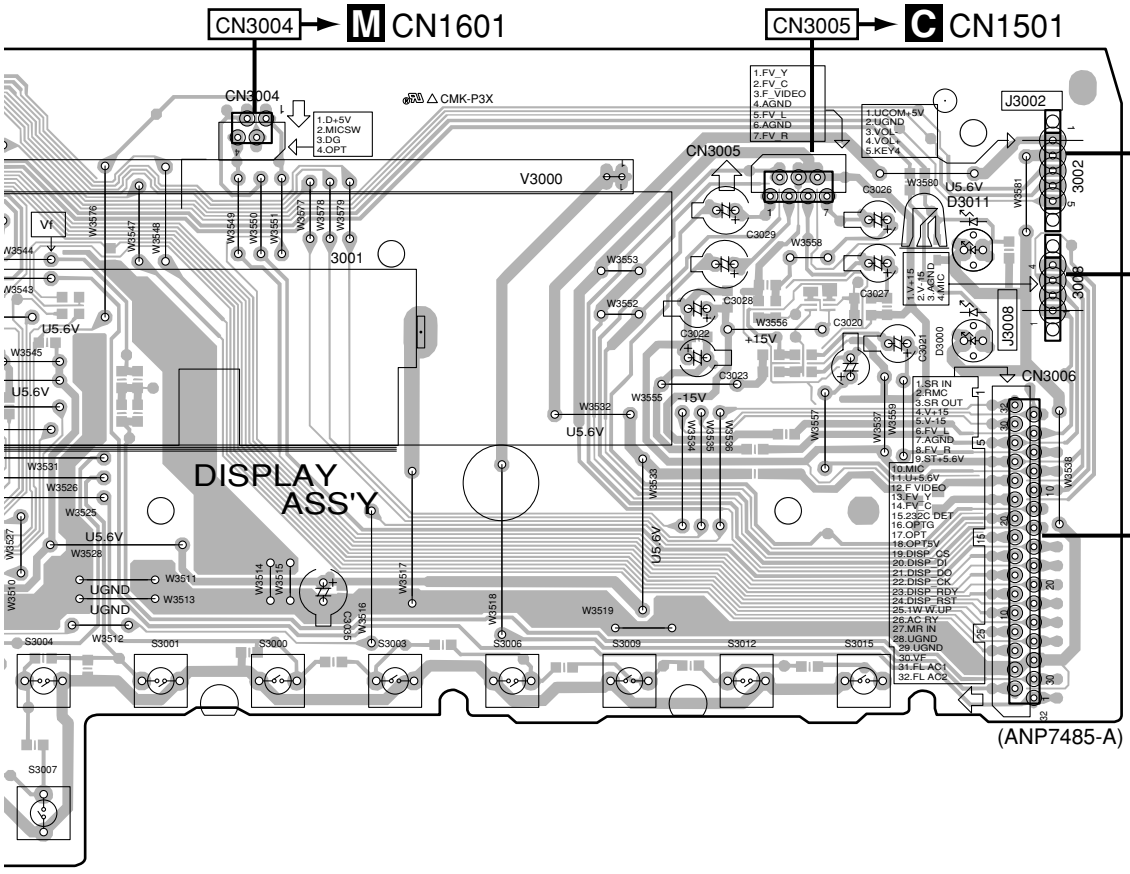
• **For VSX-AX5i-S**

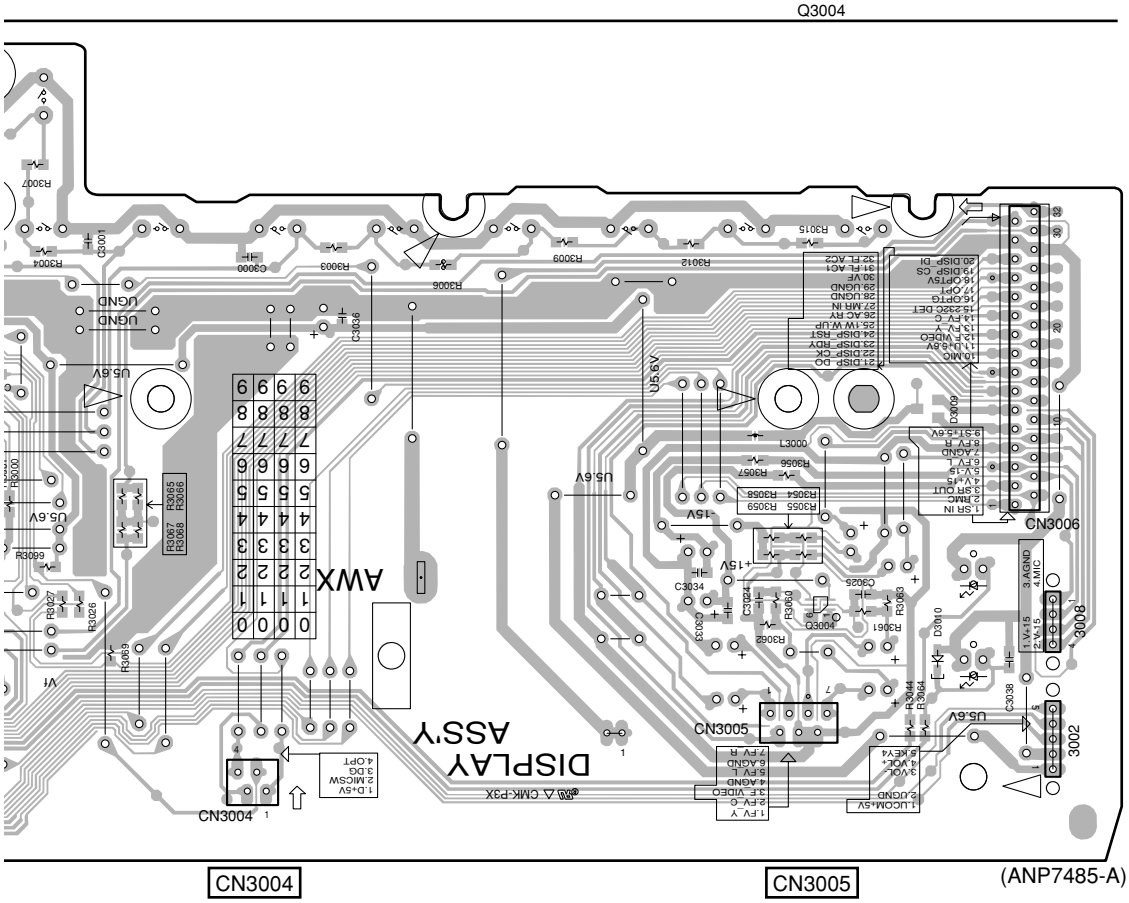
SIDE A



SIDE B

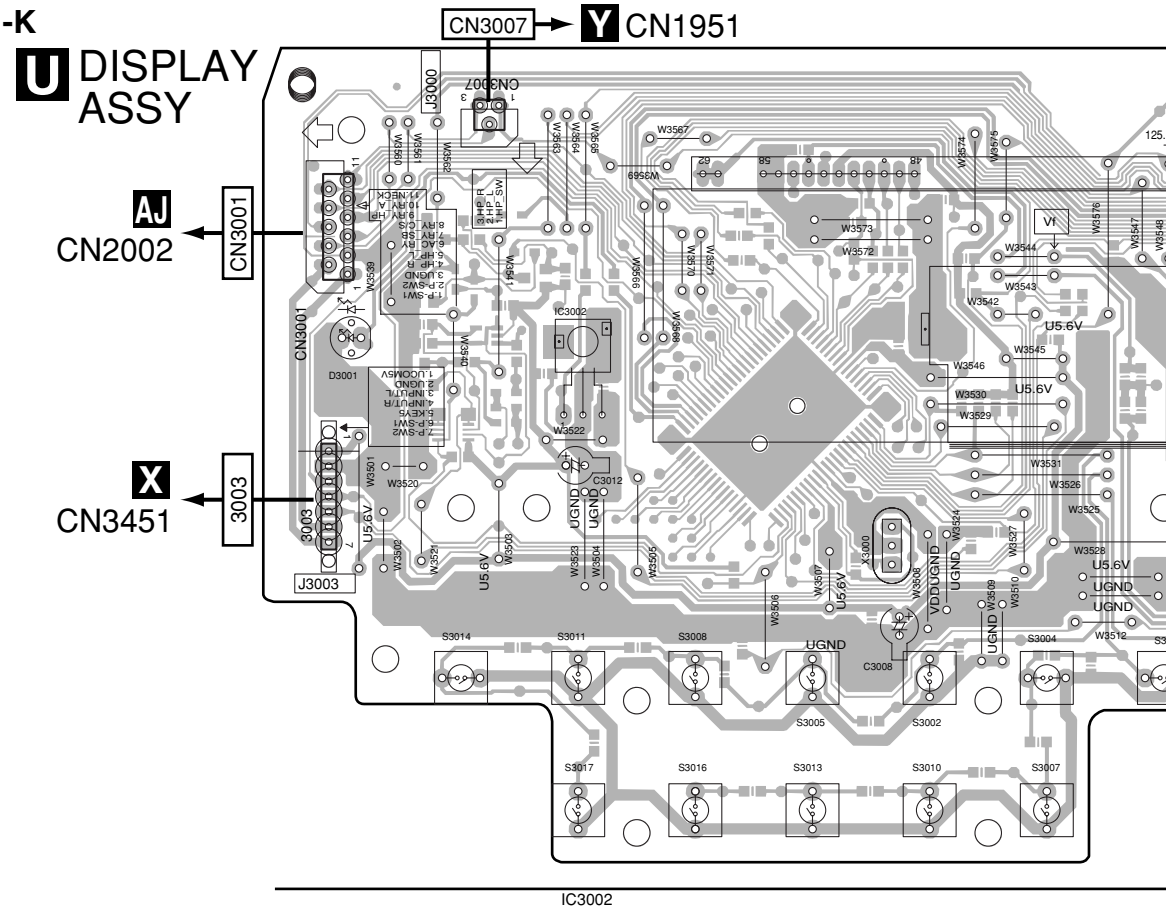



CN3004 → M CN1601
CN3005 → C CN1501
SIDE A
DISPLAY ASS'Y
CN3004
CN3005
J3002
3002
V
CN3401
3008
N
CN4752
CN3006
L
CN501
(ANP7485-A)

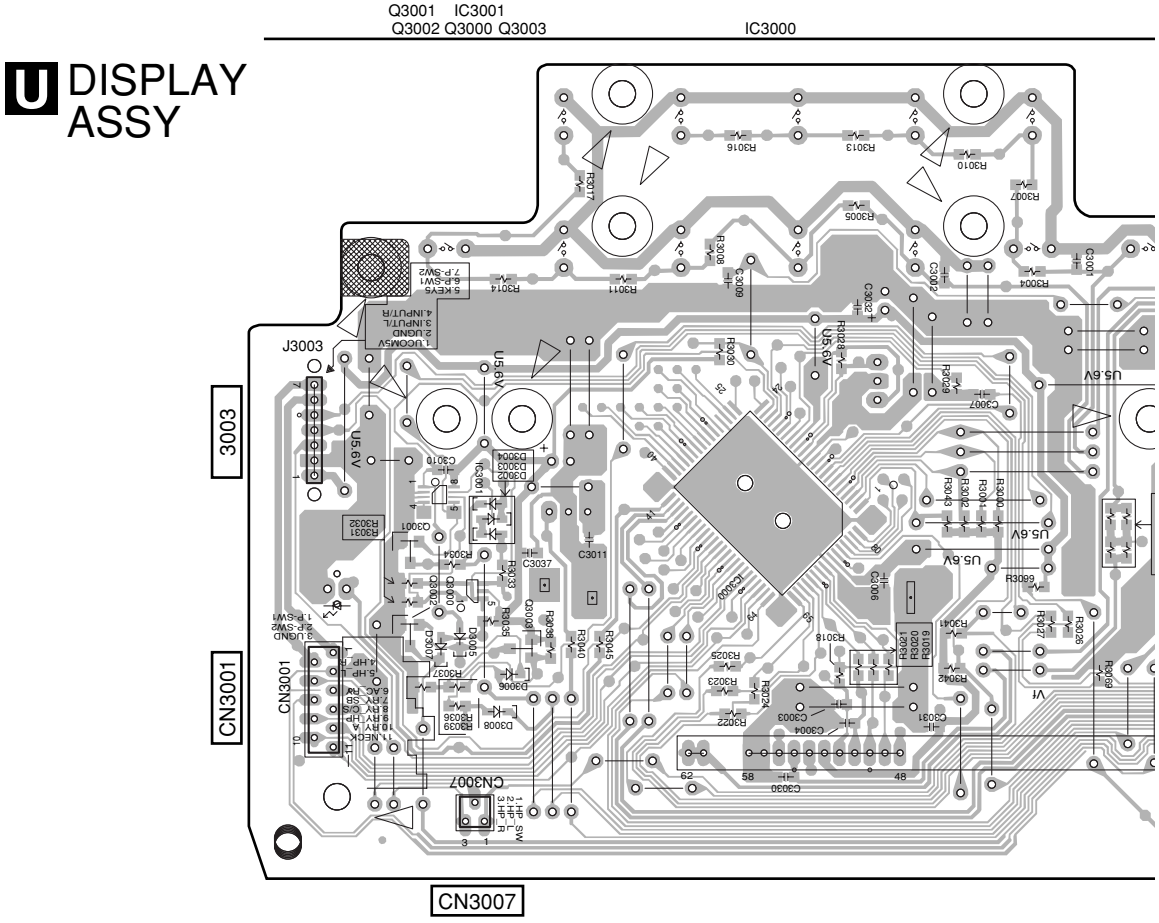

SIDE B
Q3004
DISPLAY ASS'Y
AWX
CN3004
CN3005
CN3006
3008
3002
(ANP7485-A)

• **For VSX-AX3-S, -K**

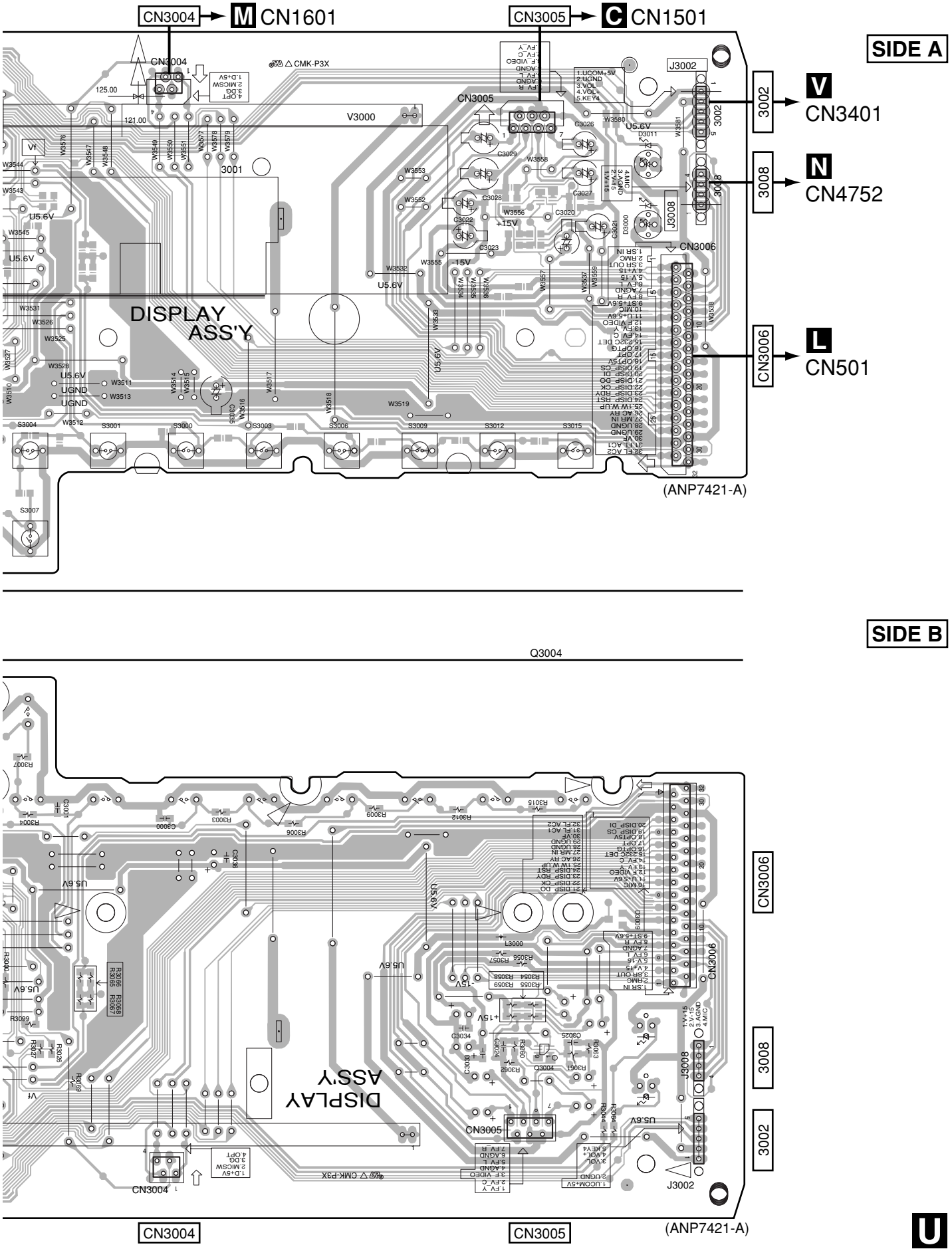
SIDE A



SIDE B



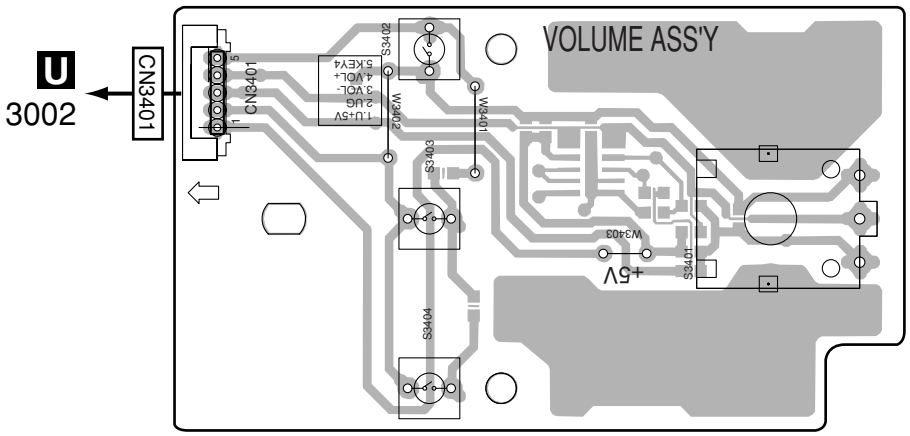
U


CN3004
M CN1601
CN3005
C CN1501
SIDE A
J3002
3002
V
CN3401
3008
N
CN4752
CN3006
L
CN501
DISPLAY
ASS'Y
(ANP7421-A)
SIDE B
Q3004
CN3004
CN3005
(ANP7421-A)

4.15 VOLUME, MECHA SW, MULTI JOG and HEADPHONE ASSYS

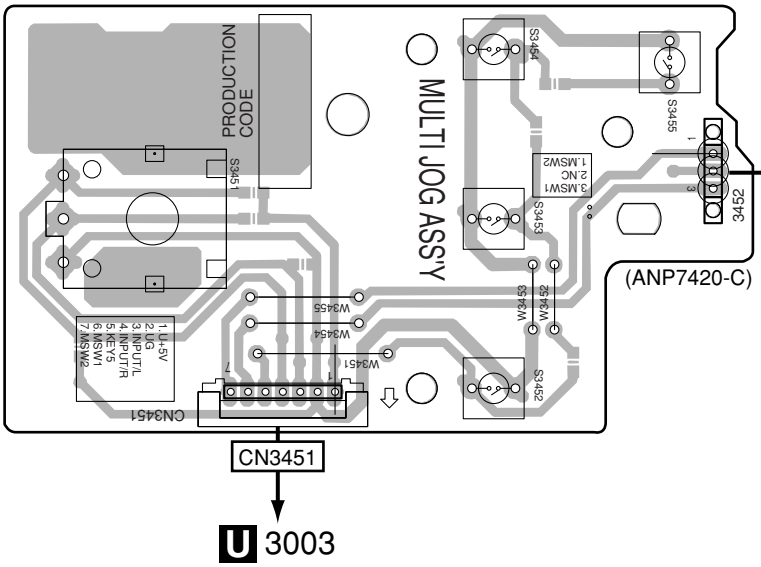
SIDE A **SIDE A**

V VOLUME ASSY



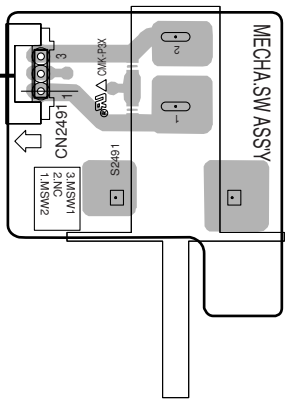
(ANP7420-C)

X MULTI JOG ASSY



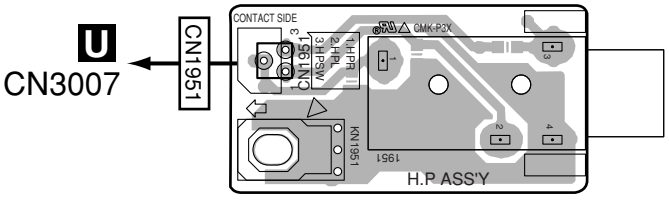
(ANP7420-C)

W MECHA SW ASSY



(ANP7420-C)

Y HEADPHONE ASSY

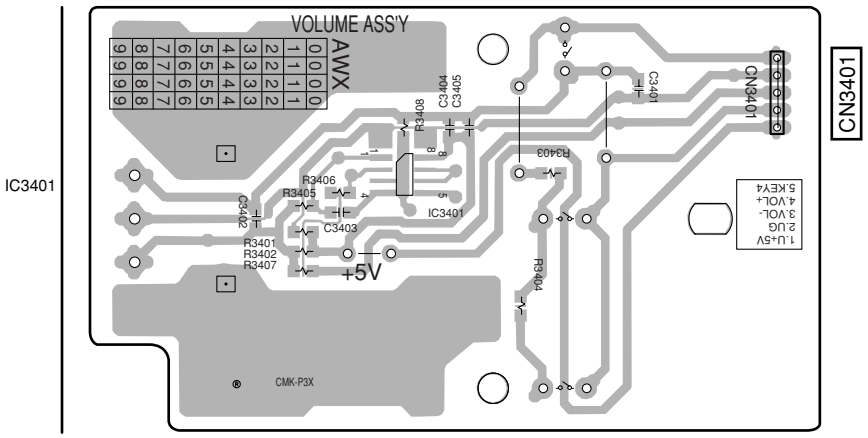


(ANP7420-C)

SIDE B

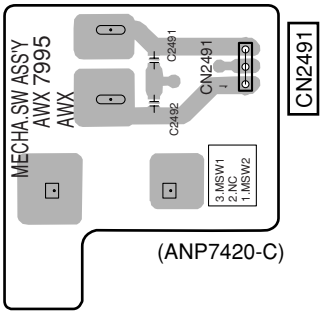
SIDE B

V VOLUME ASSY



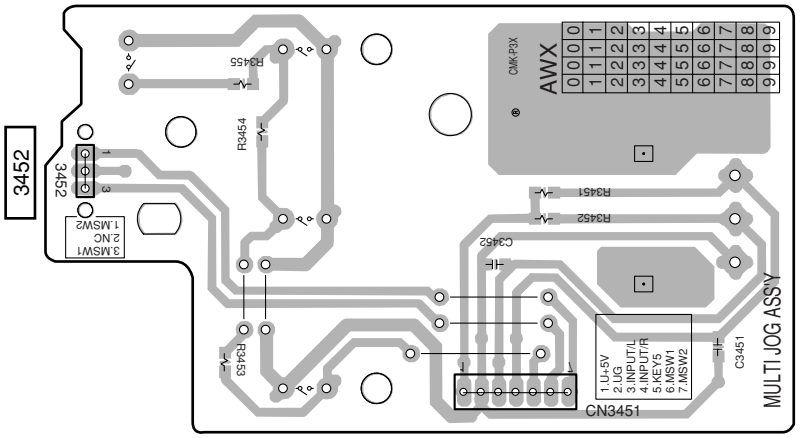
(ANP7420-C)

W MECHA SW ASSY



(ANP7420-C)

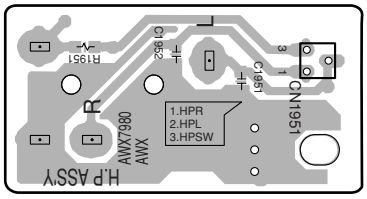
X MULTI JOG ASSY



CN3451

(ANP7420-C)

Y HEADPHONE ASSY



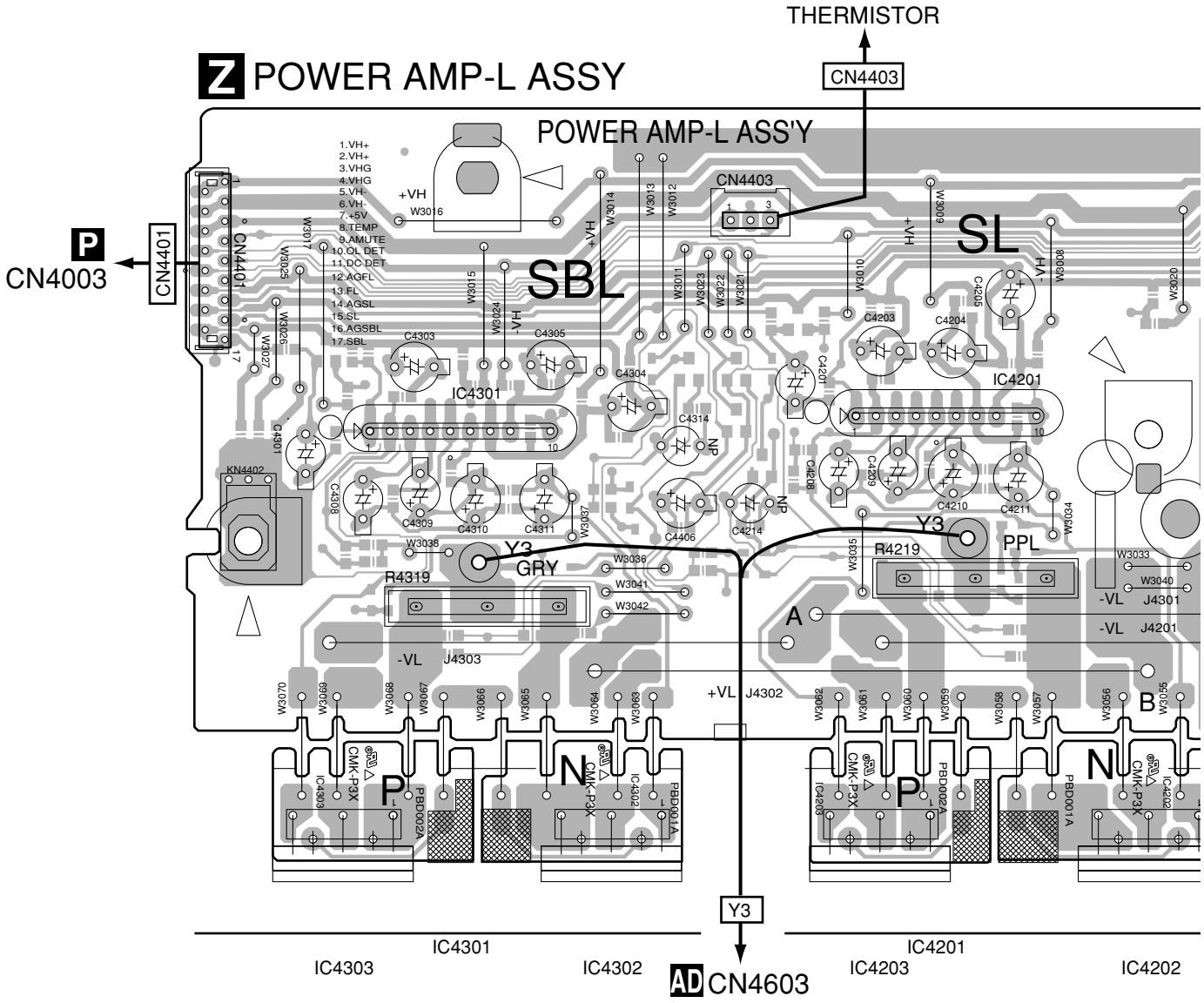
CN1951

(ANP7420-C)

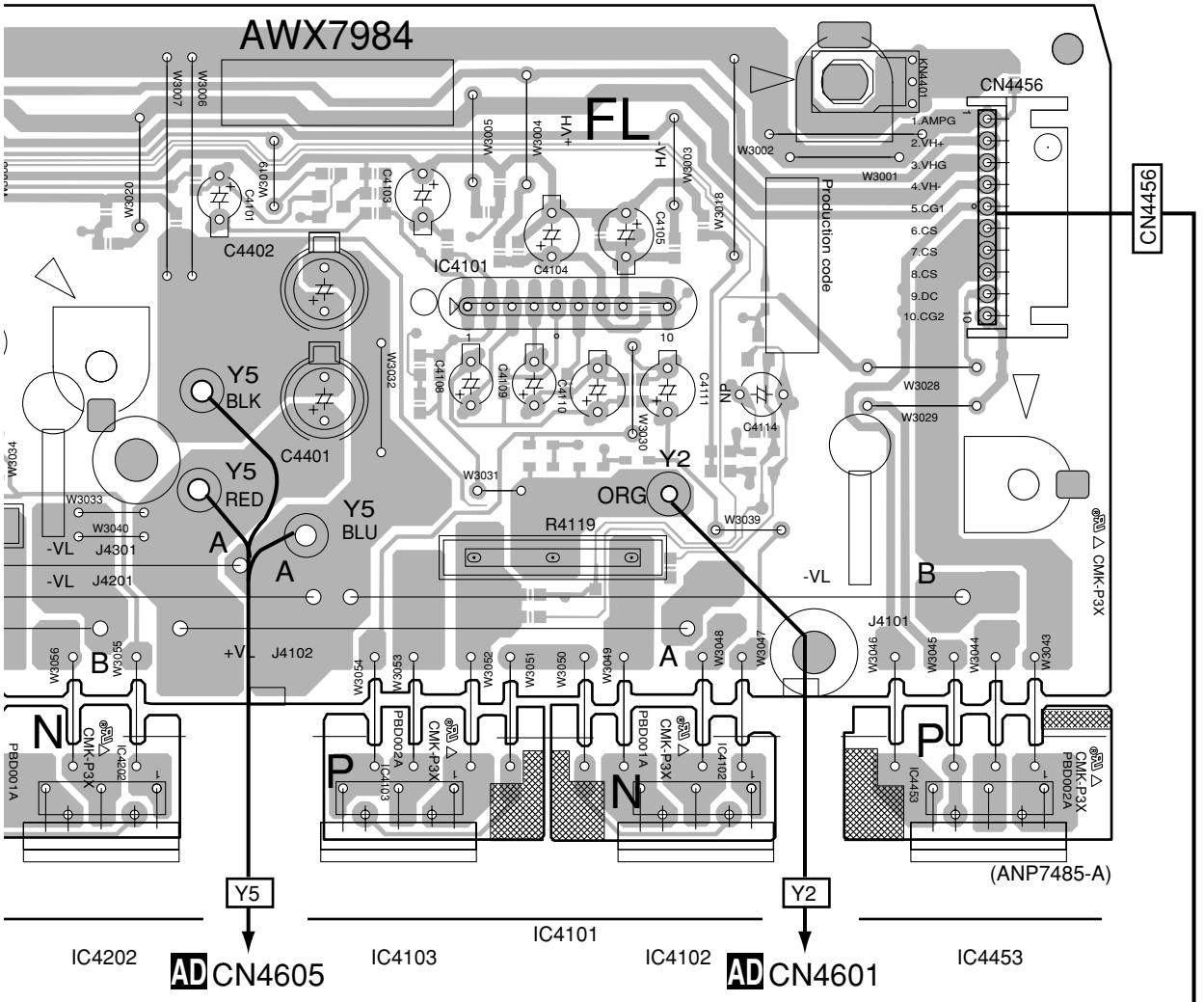
4.16 POWER AMP L and POWER AMP C ASSYS

SIDE A

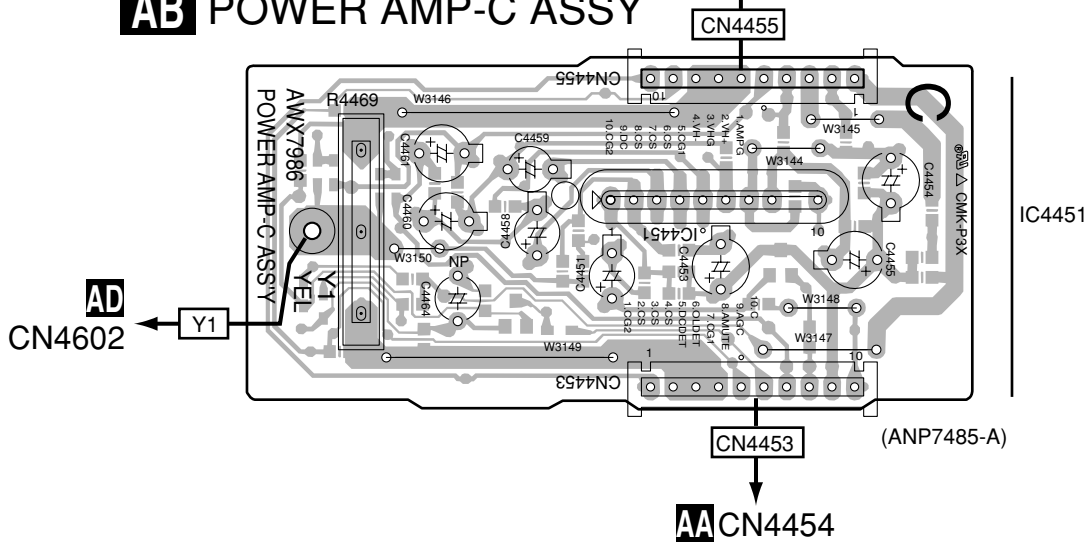
• For VSX-AX5i-S



SIDE A



AB POWER AMP-C ASSY

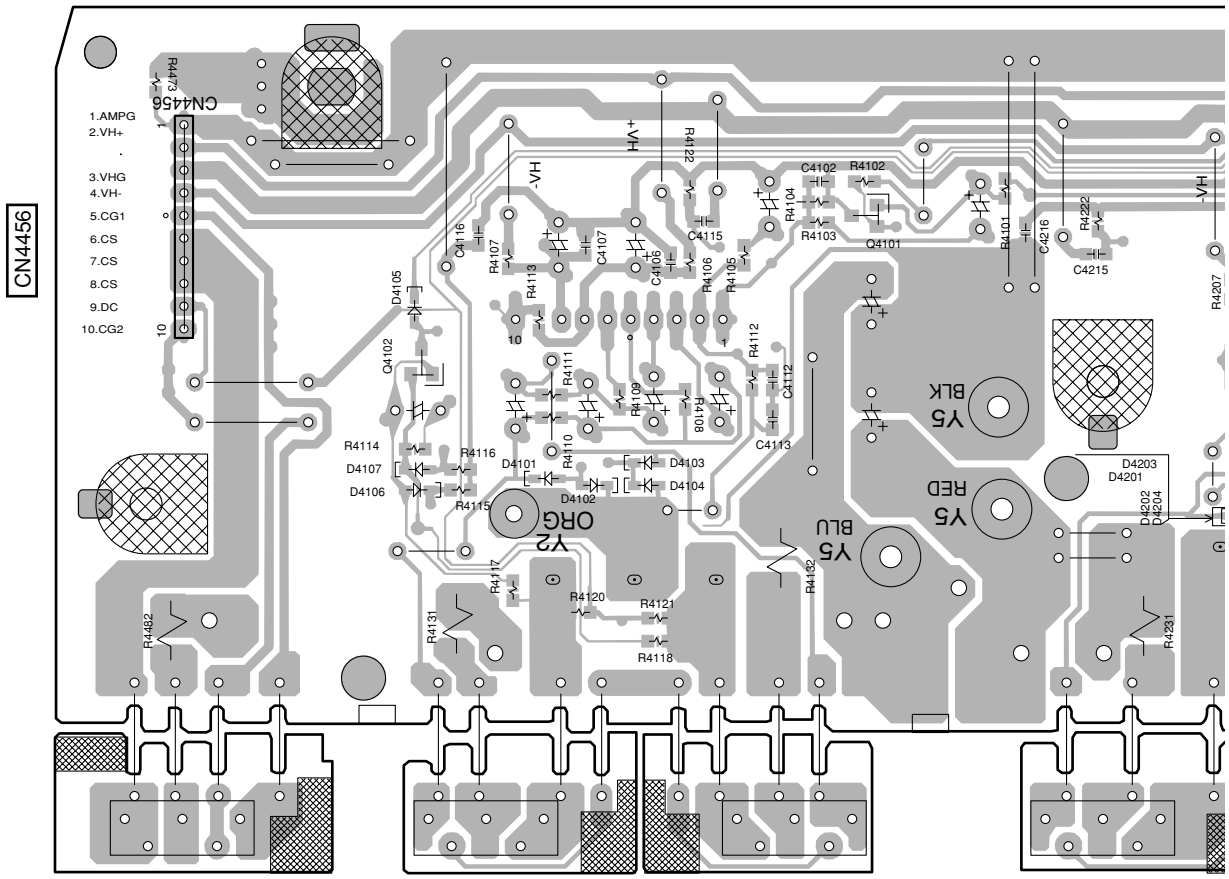


Z **AB**

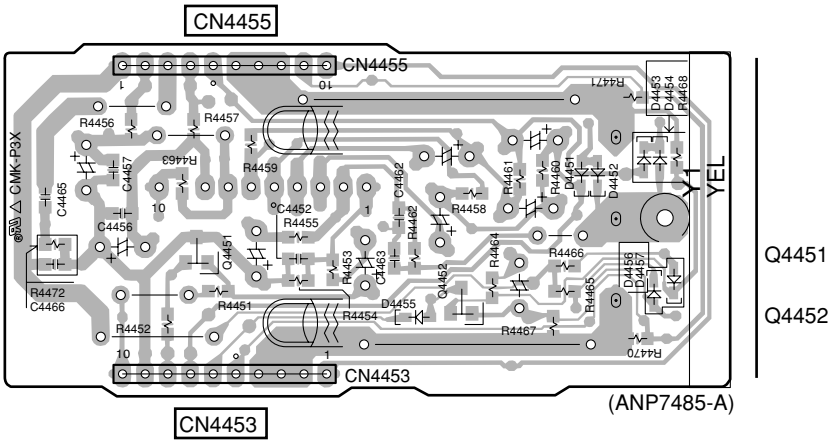
SIDE B

• For VSX-AX5i-S

Z POWER AMP-L ASSY

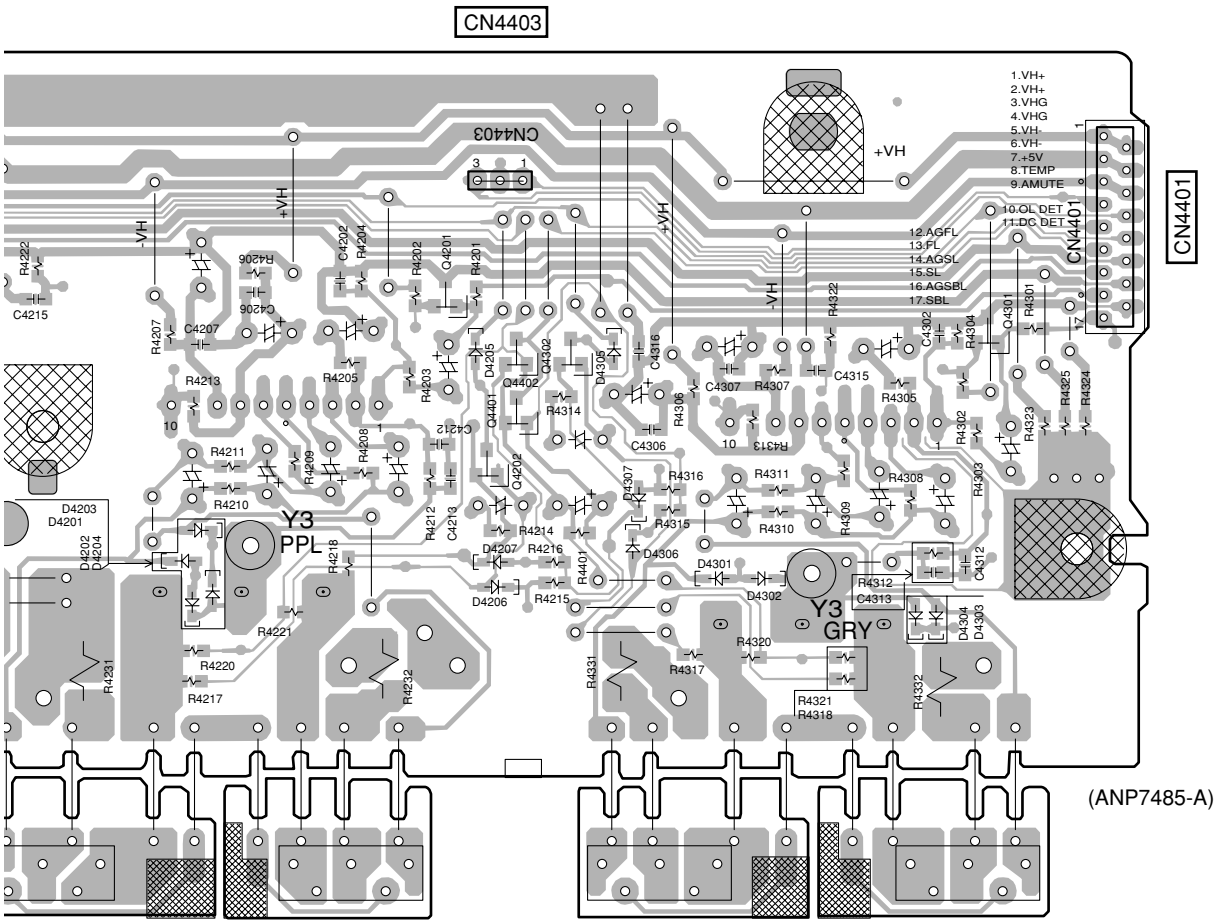


AB POWER AMP-C ASSY



Z AB

SIDE B

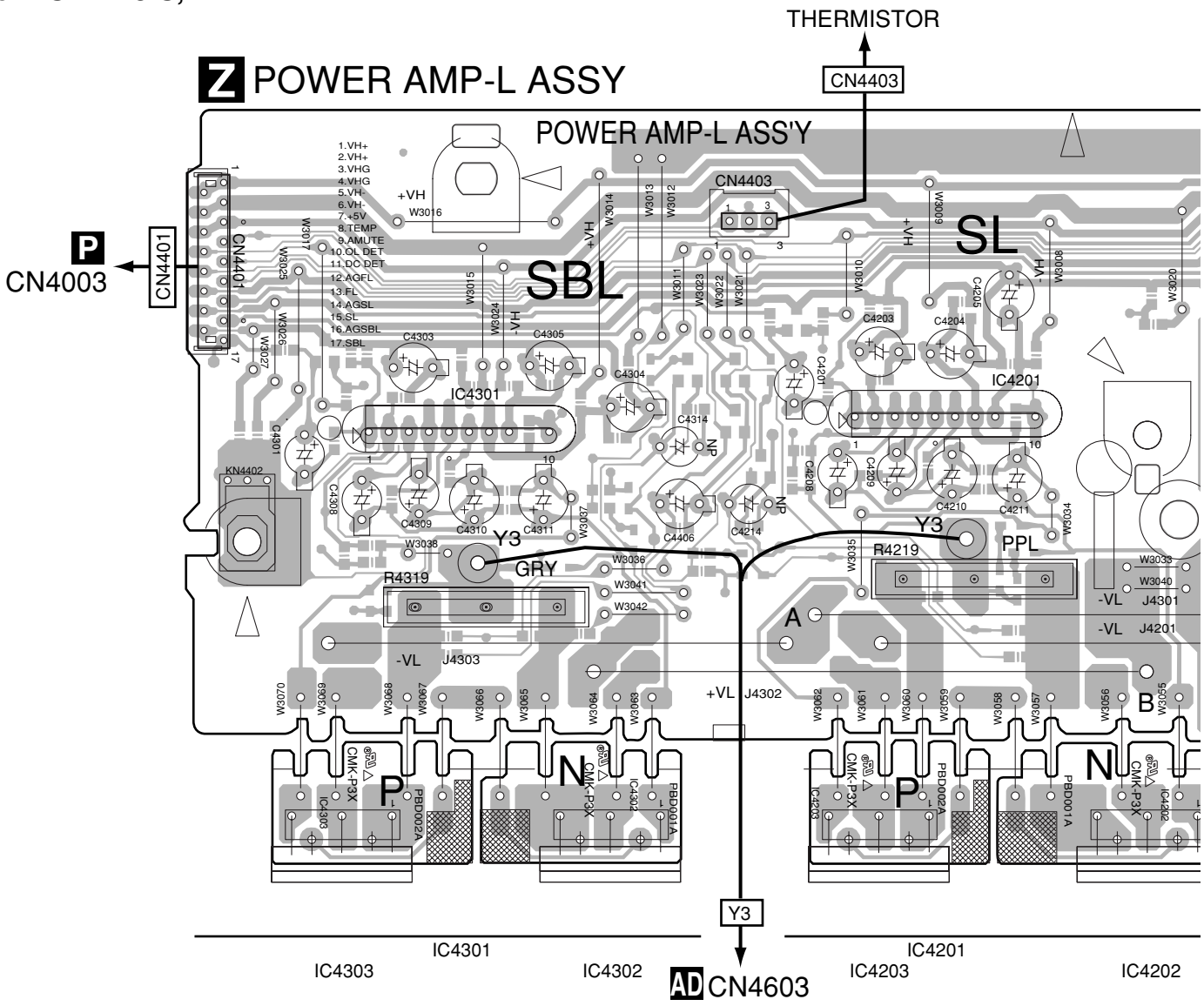


Q4201 Q4402 Q4302
Q4401
Q4202

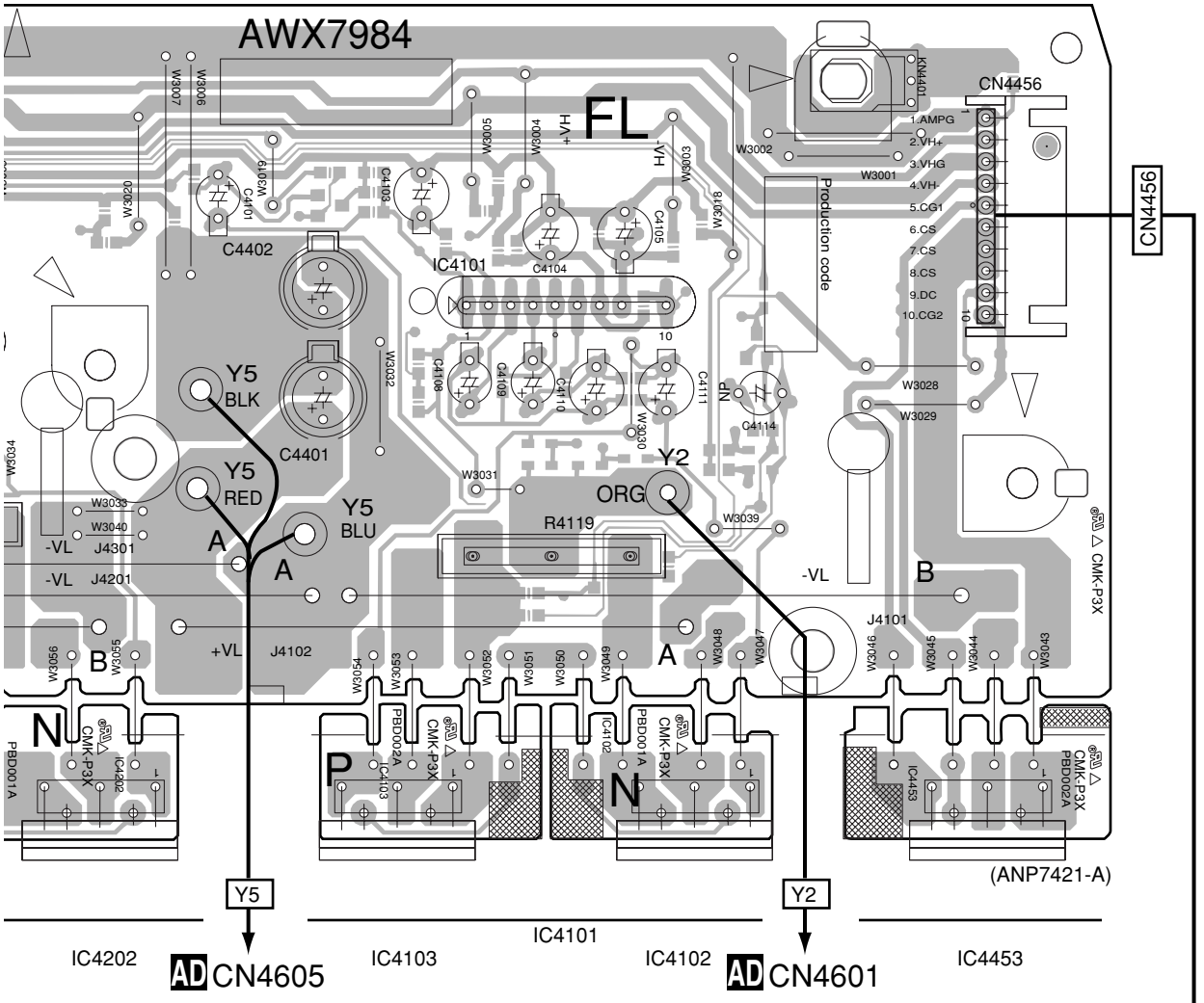
Q4301

SIDE A

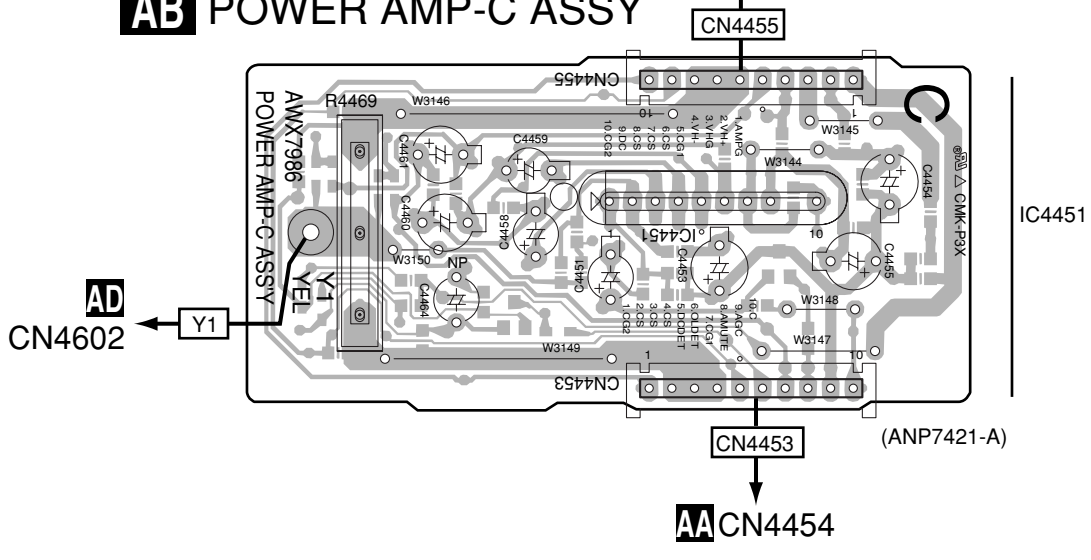
• For VSX-AX3-S, -K



SIDE A



AB POWER AMP-C ASSY

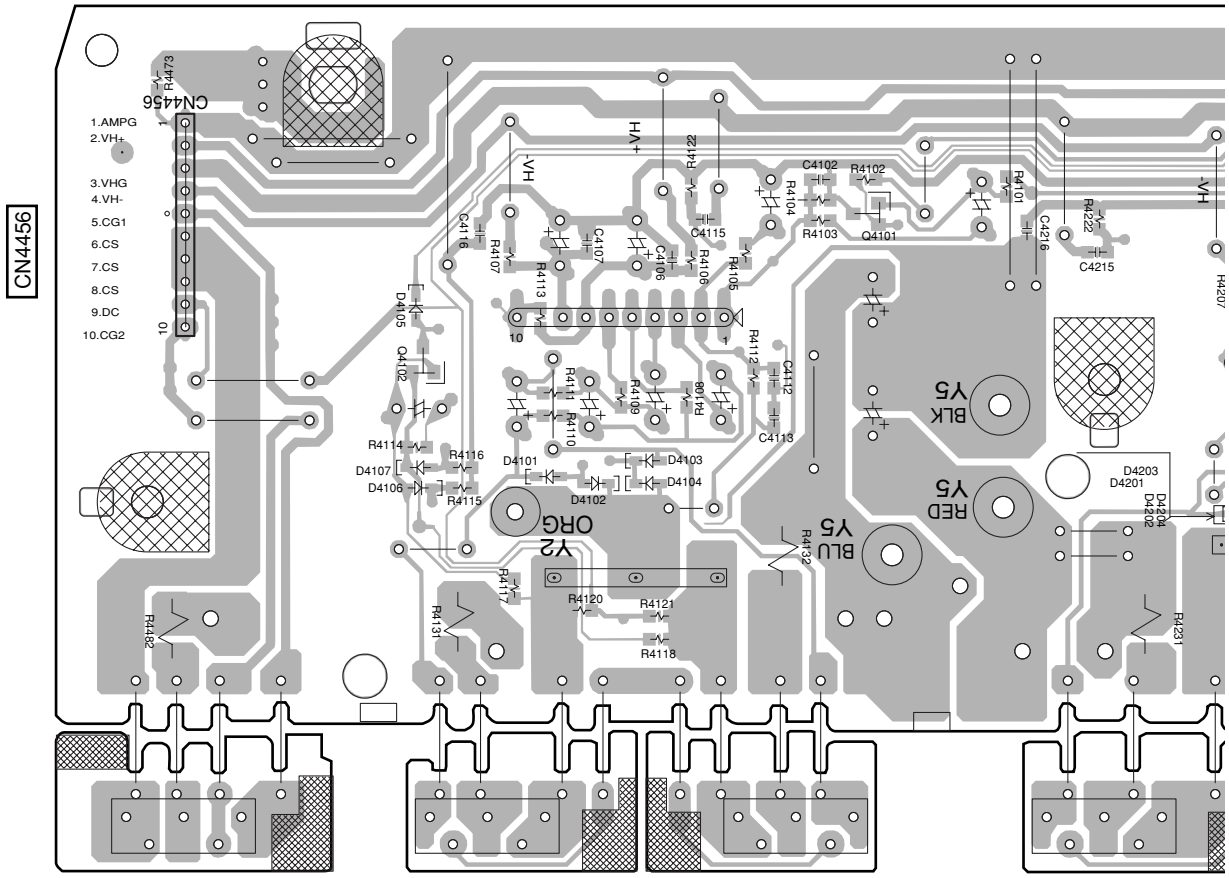


Z **AB**

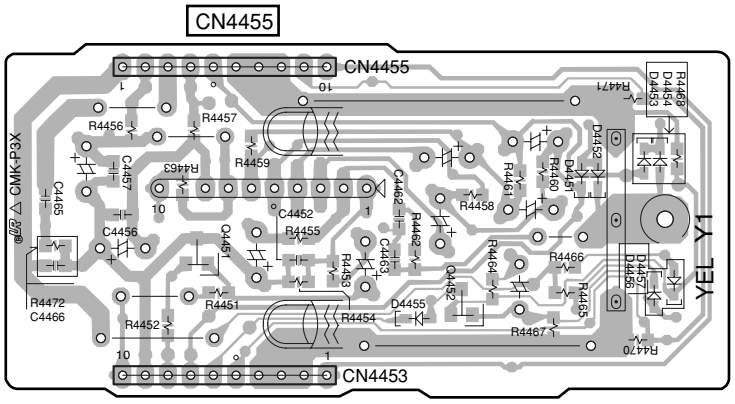
SIDE B

• For VSX-AX3-S, -K

Z POWER AMP-L ASSY

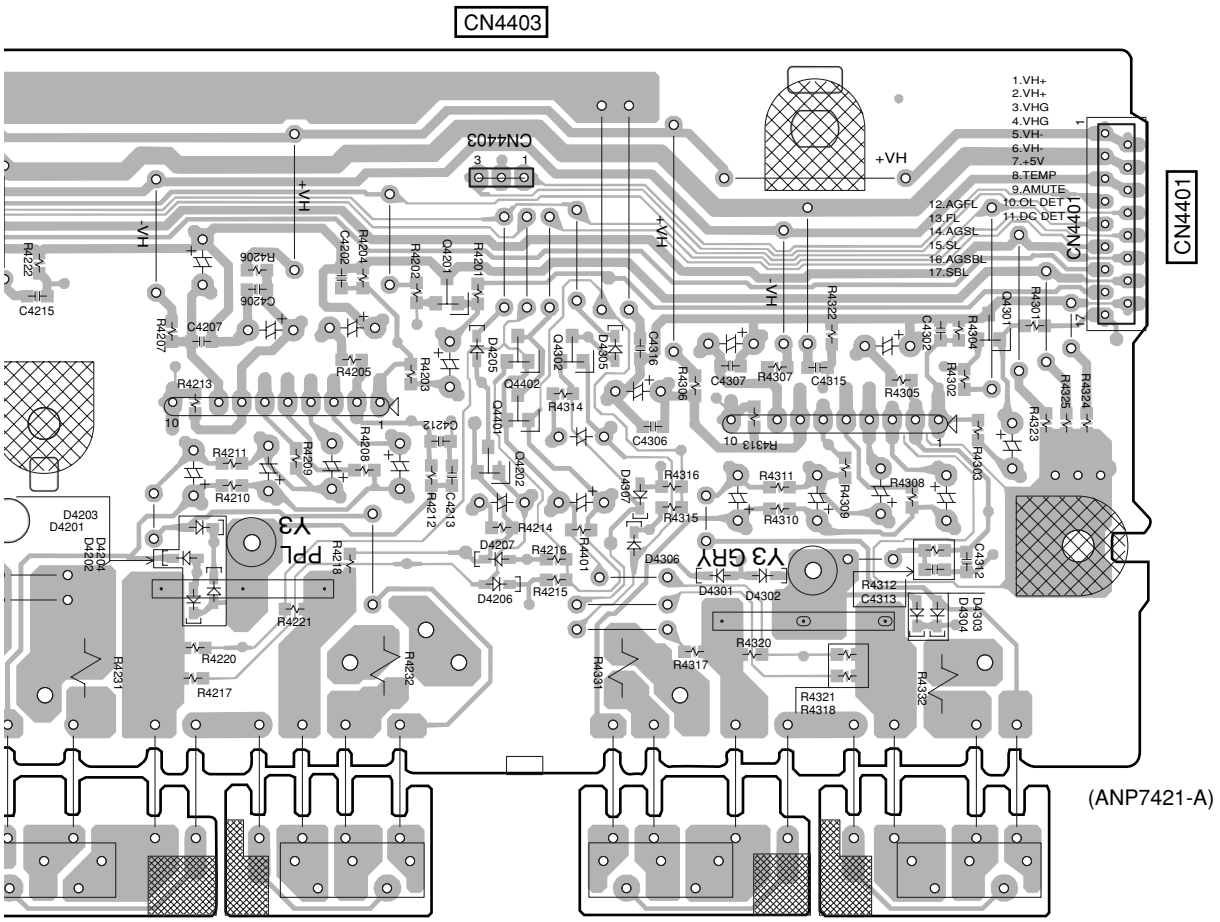


AB POWER AMP-C ASSY



Z AB

SIDE B



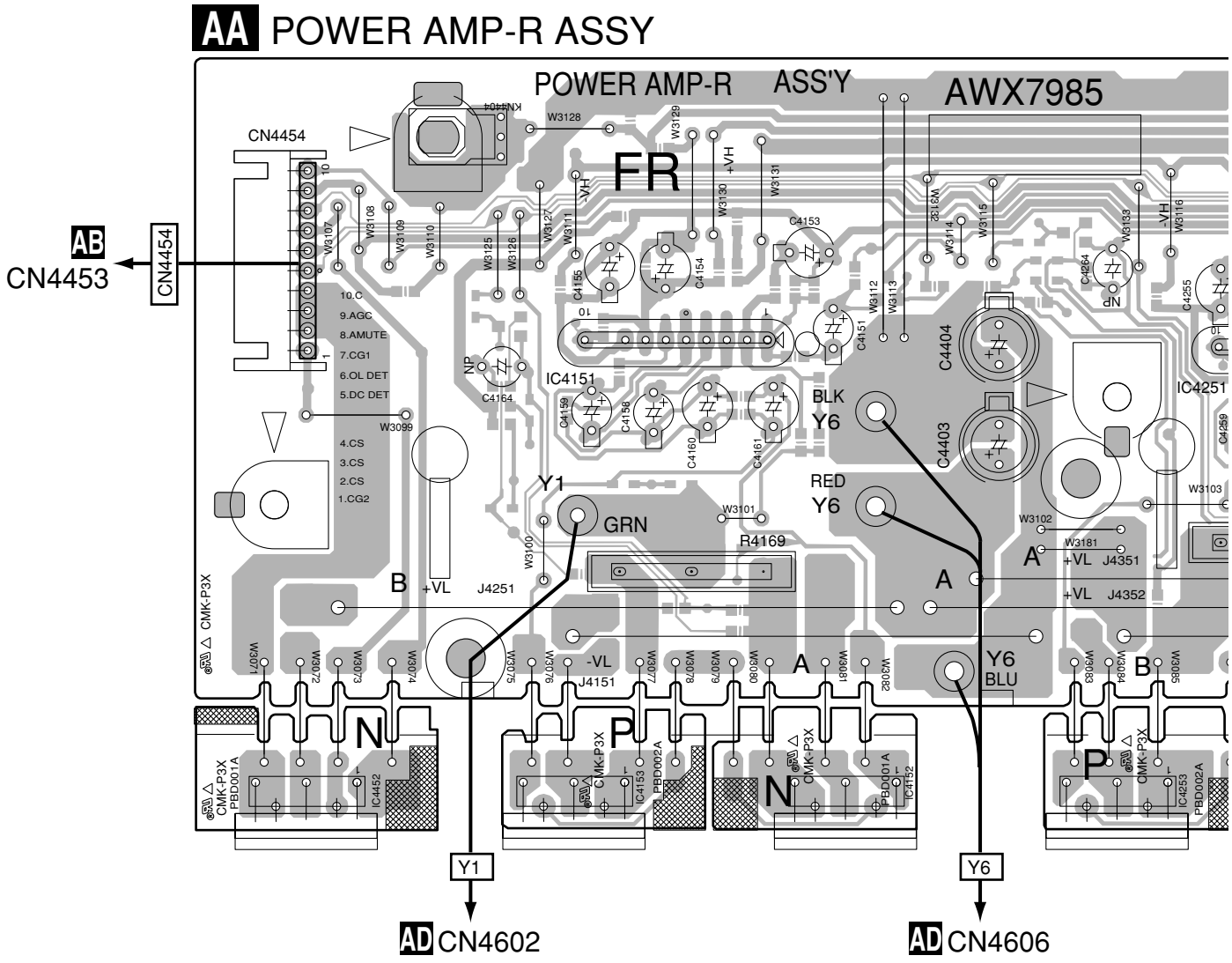
Q4201 Q4402 Q4302
Q4401
Q4202

Q4301

4.17 POWER AMP R ASSY

SIDE A

• For VSX-AX5i-S

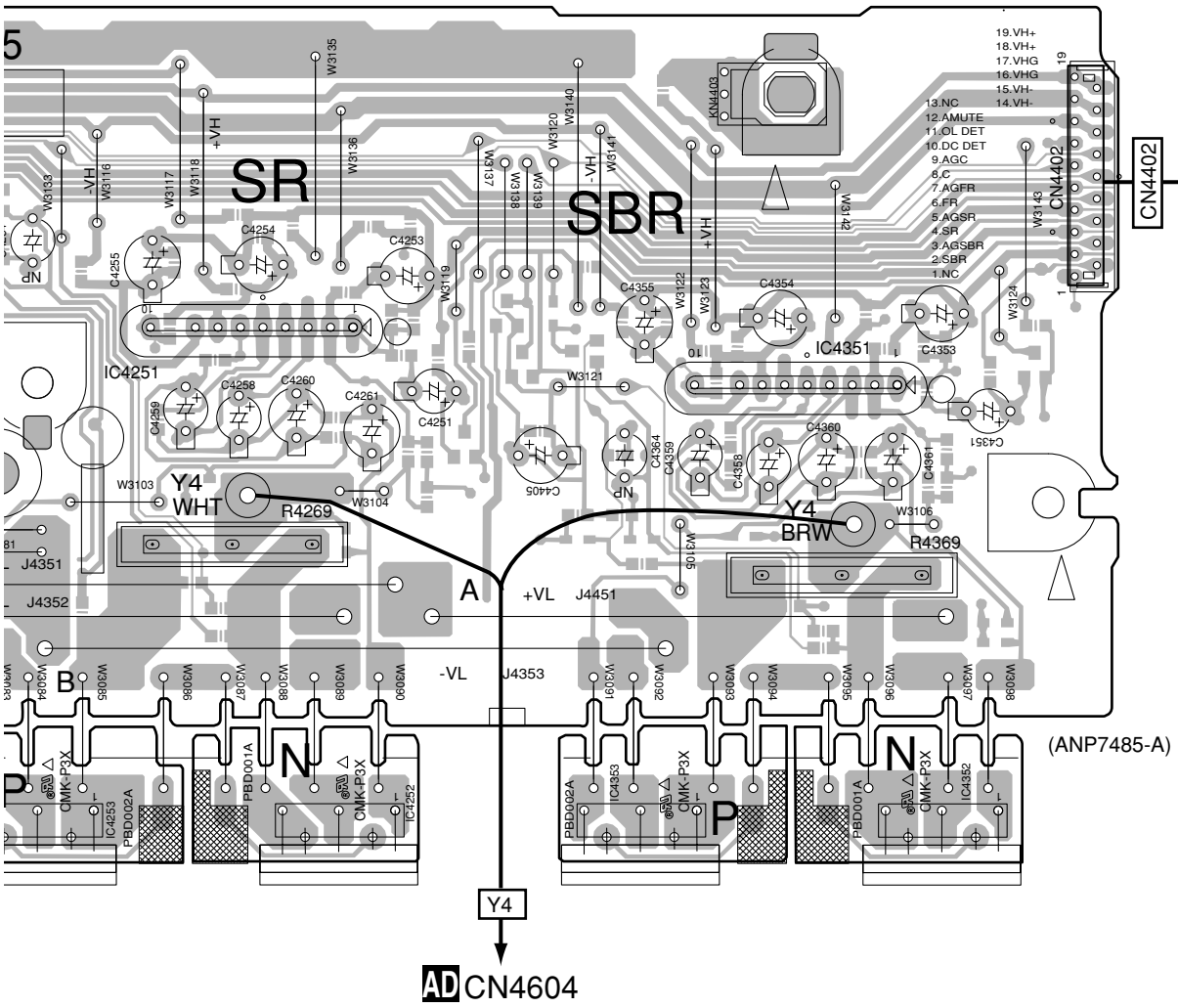


IC4151

IC4452 IC4153 IC4152 IC4253

AA

SIDE A



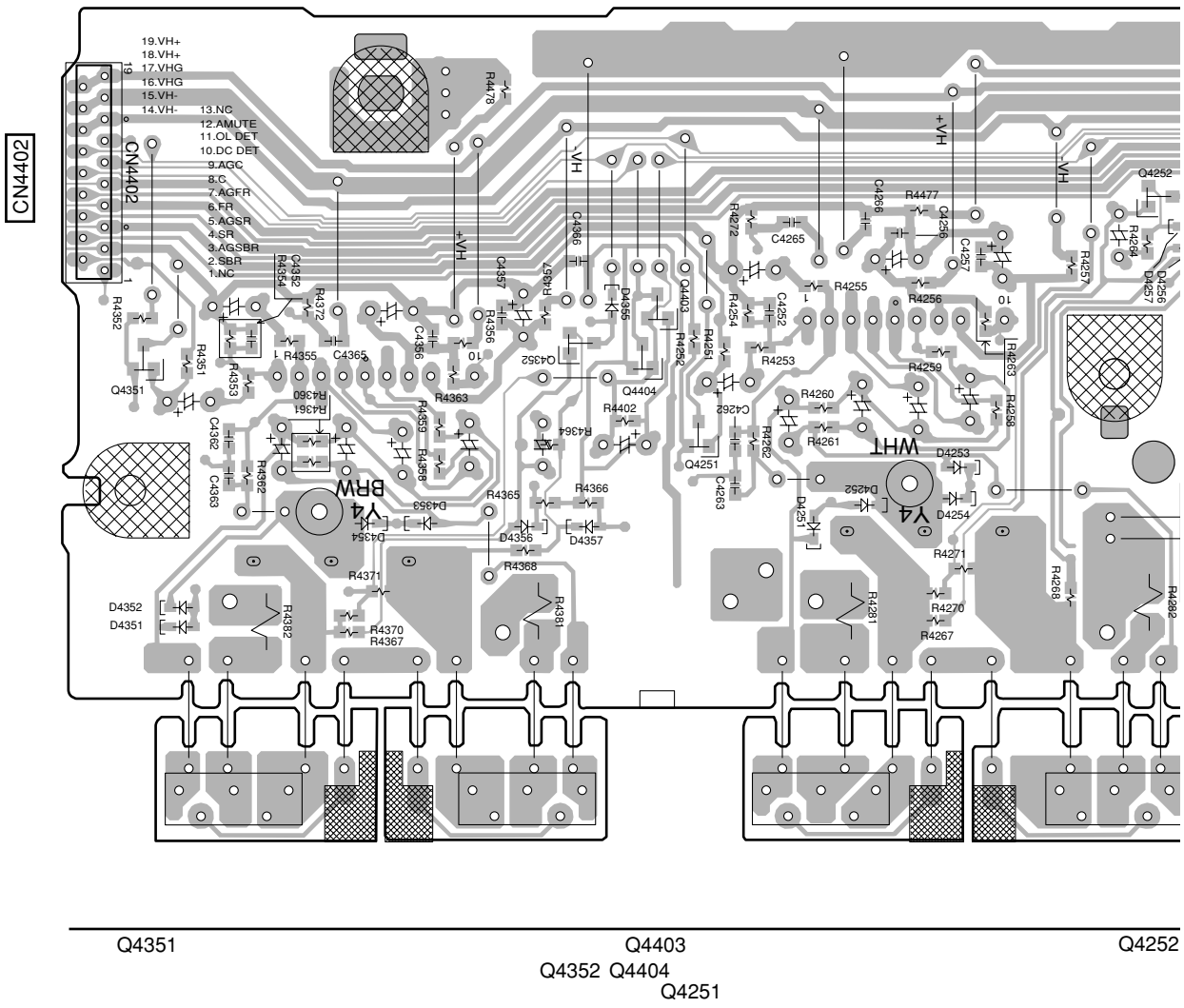
IC4251 IC4351

IC4253 IC4252 IC4353 IC4352

SIDE B

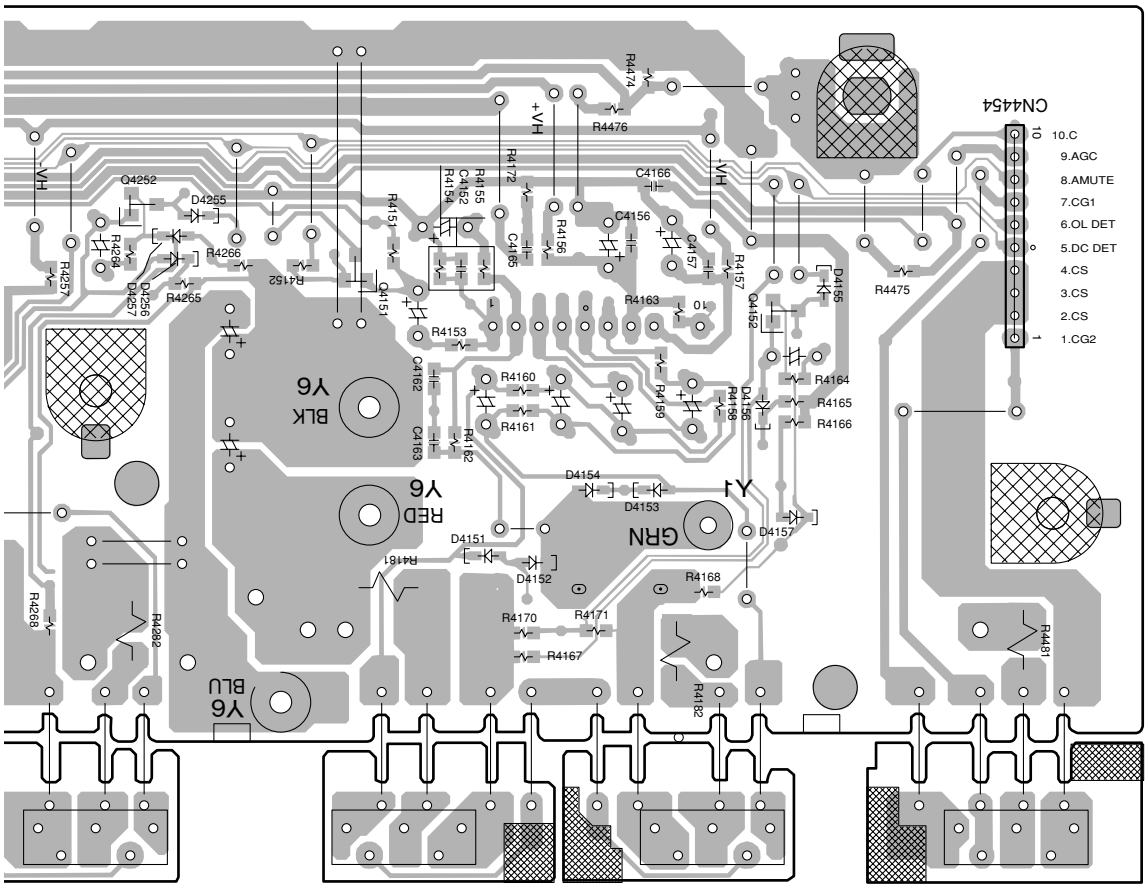
• For VSX-AX5i-S

AA POWER AMP-R ASSY



AA

SIDE B



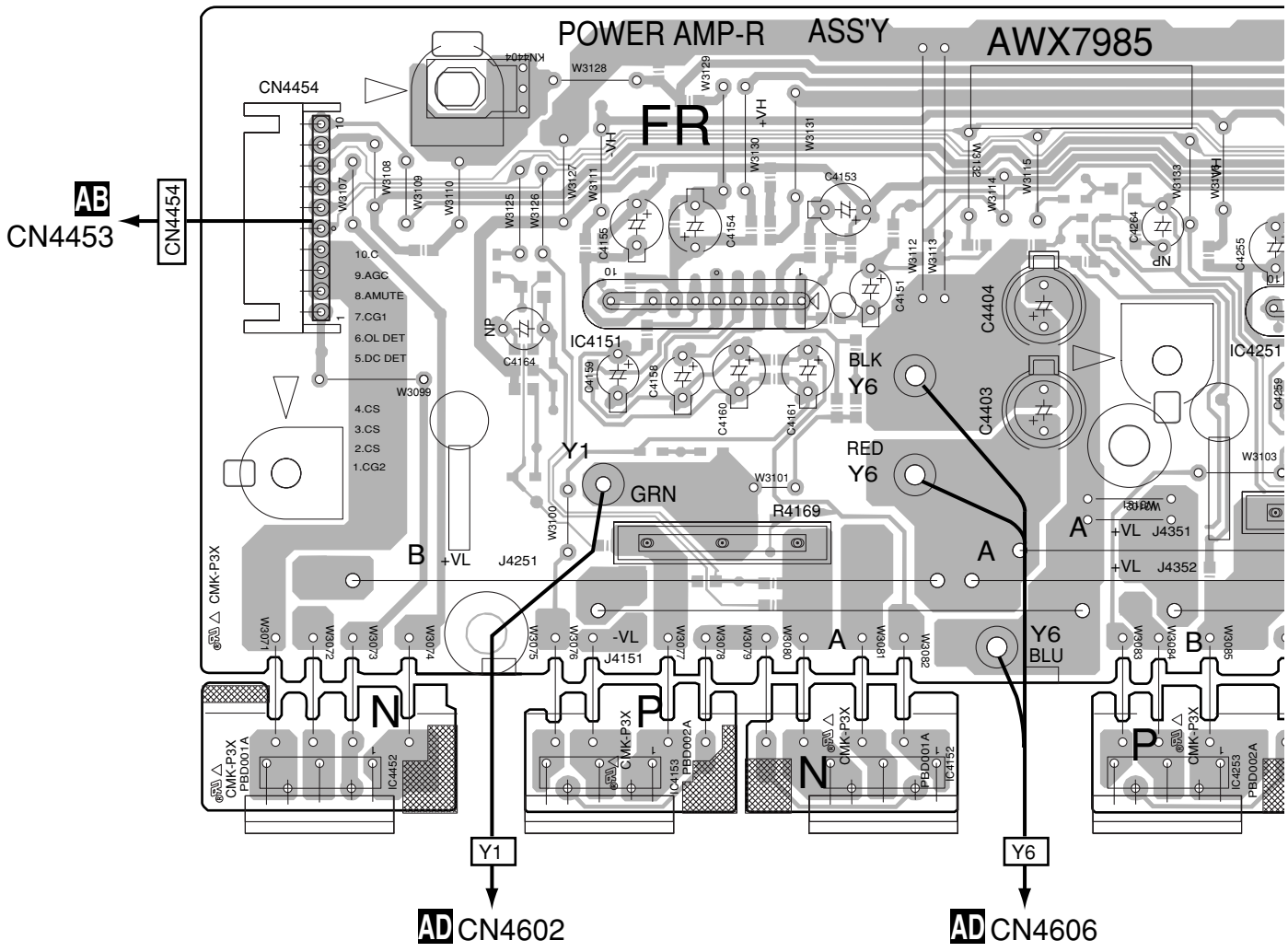
(ANP7485-A)

Q4252 Q4151 Q4152

SIDE A

• For VSX-AX3-S, -K

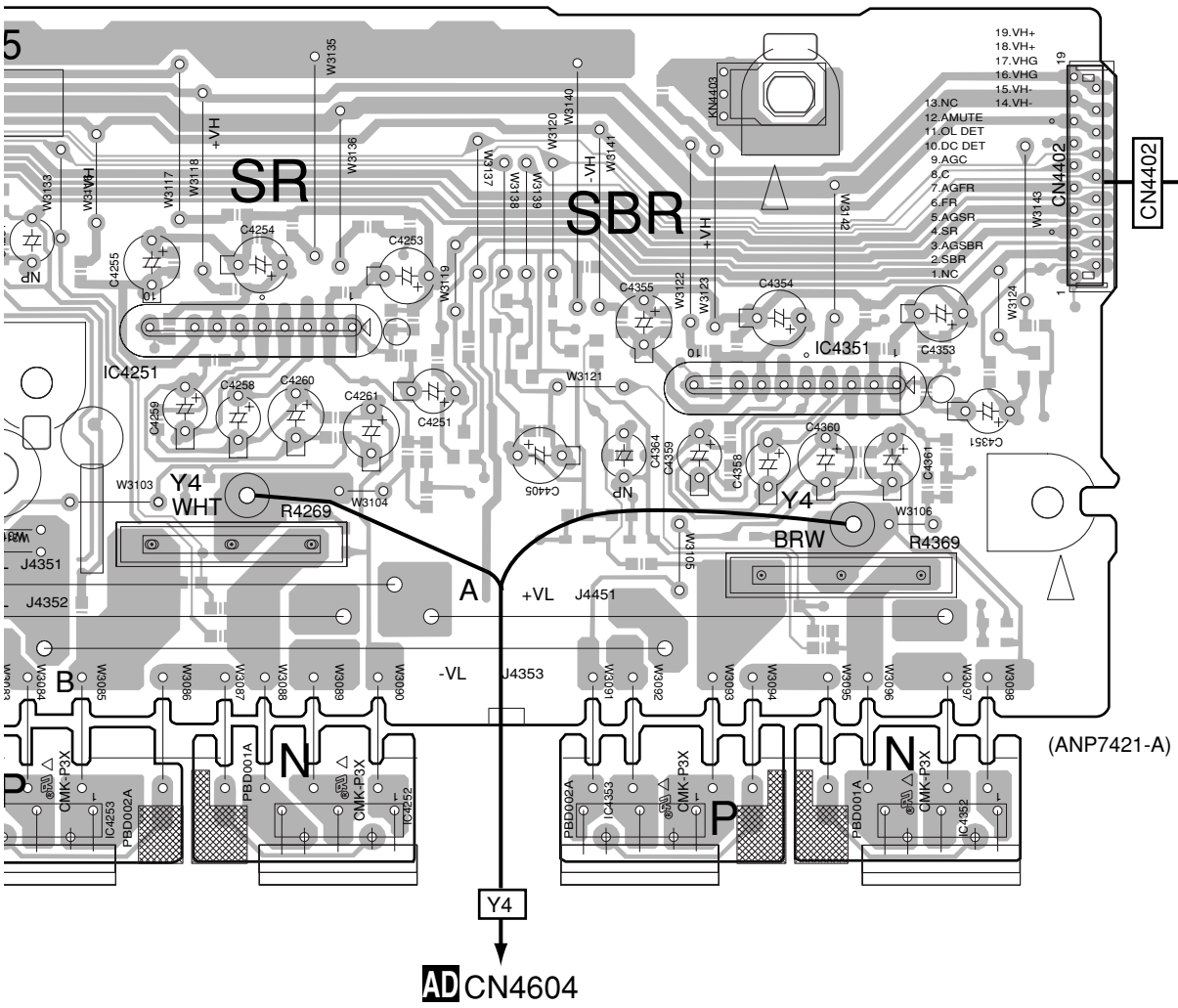
AA POWER AMP-R ASSY



IC4151

IC4452 IC4153 IC4152 IC4253

SIDE A



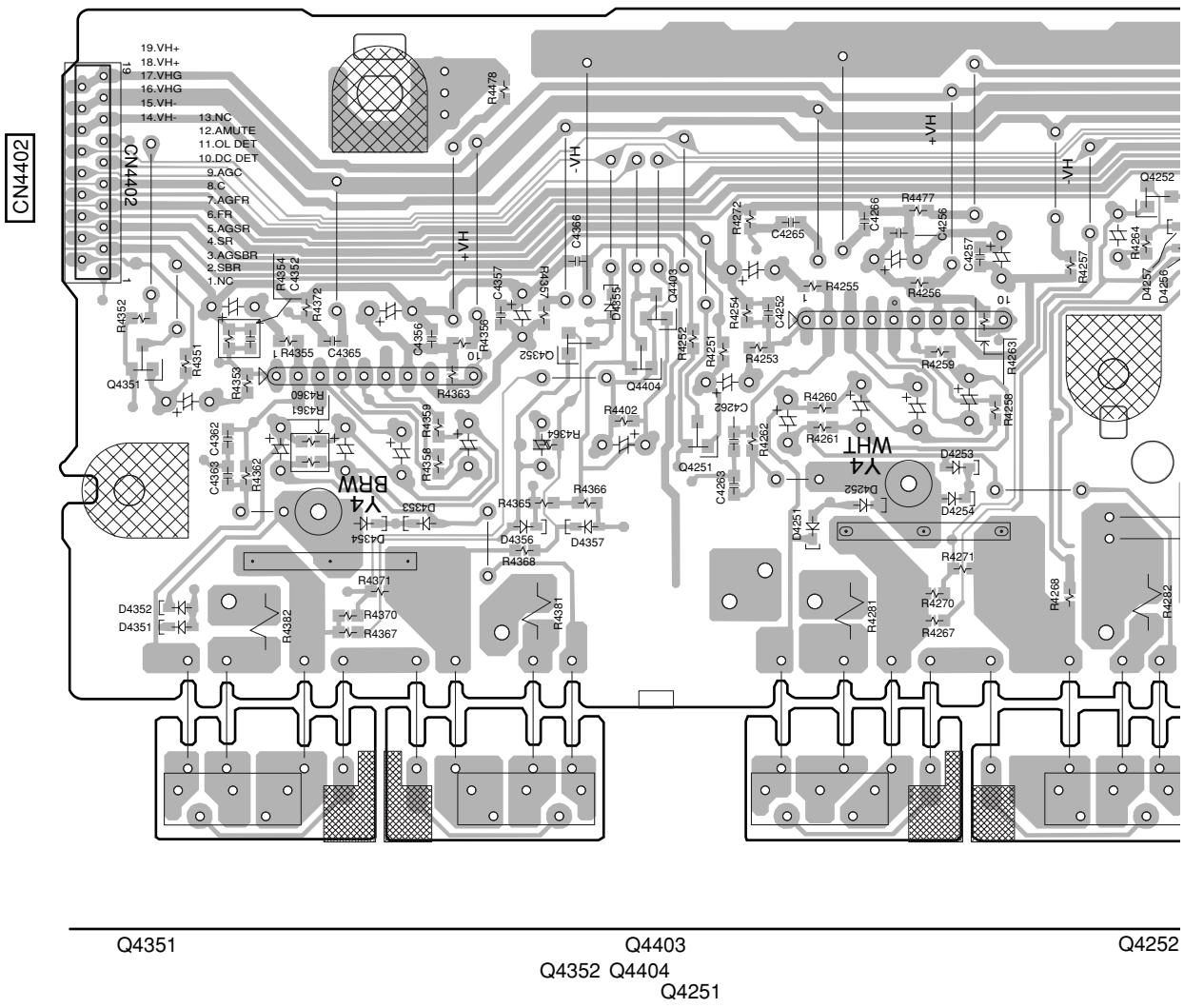
IC4251 IC4351

IC4253 IC4252 IC4353 IC4352

SIDE B

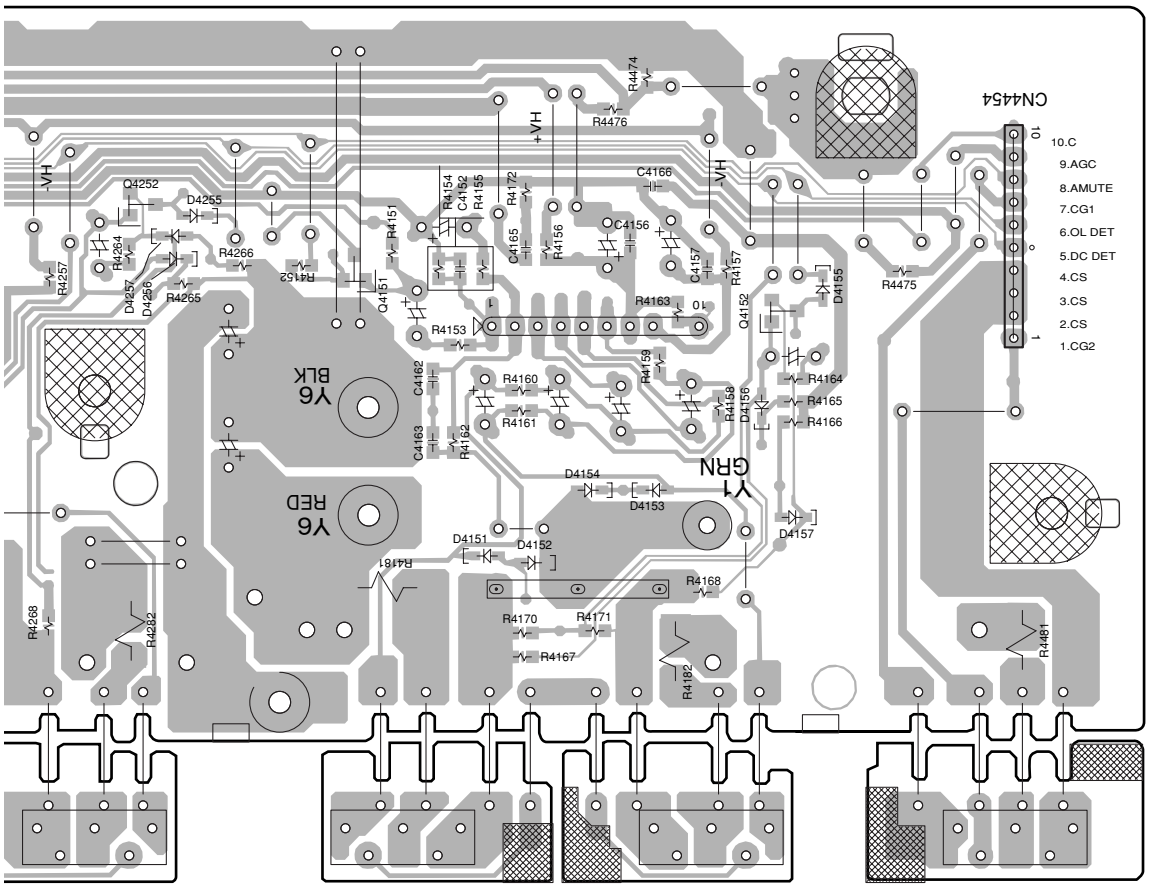
• For VSX-AX3-S, -K

AA POWER AMP-R ASSY



AA

SIDE B



CN4454

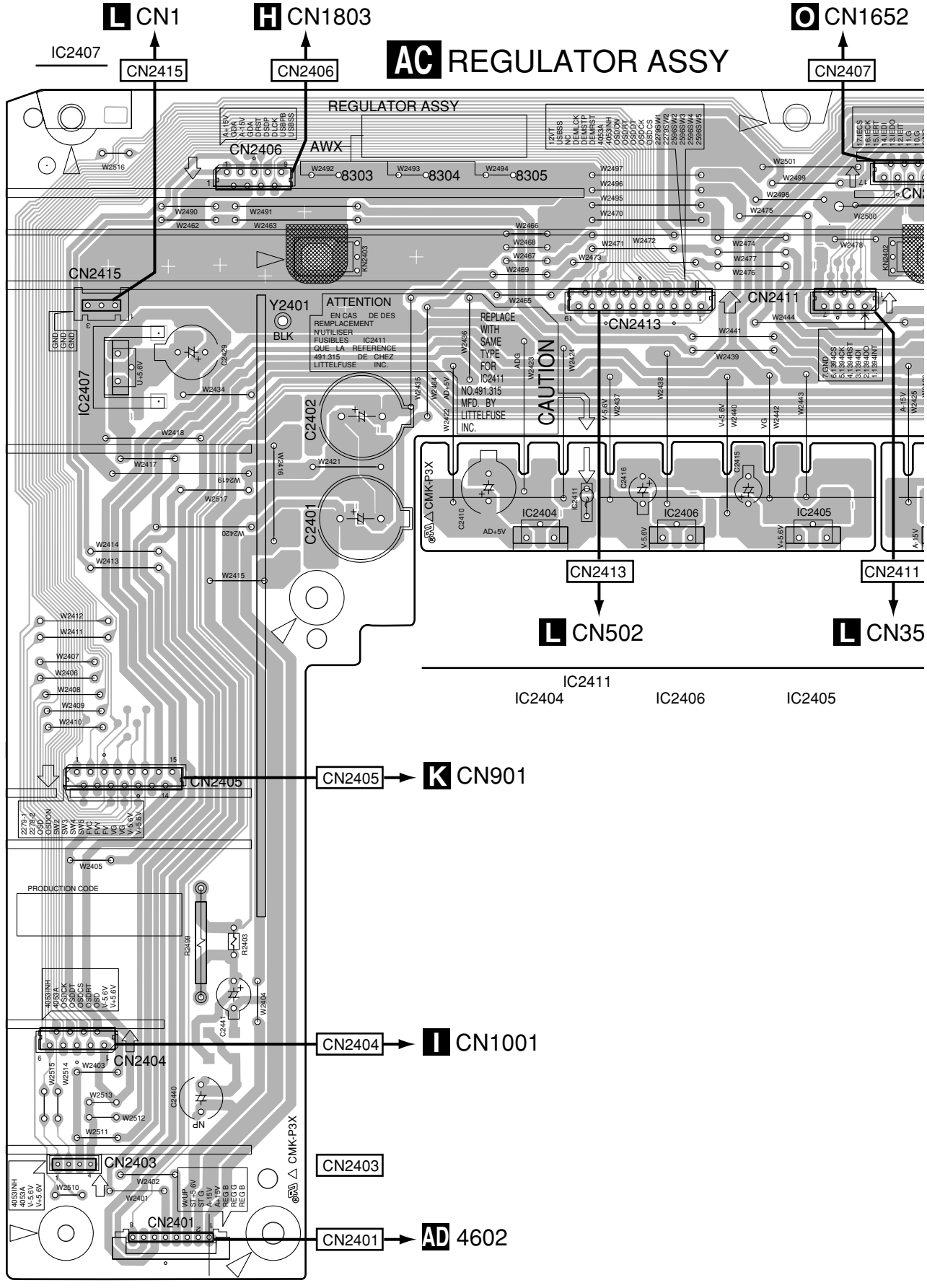
(ANP7421-A)

Q4252 Q4151 Q4152

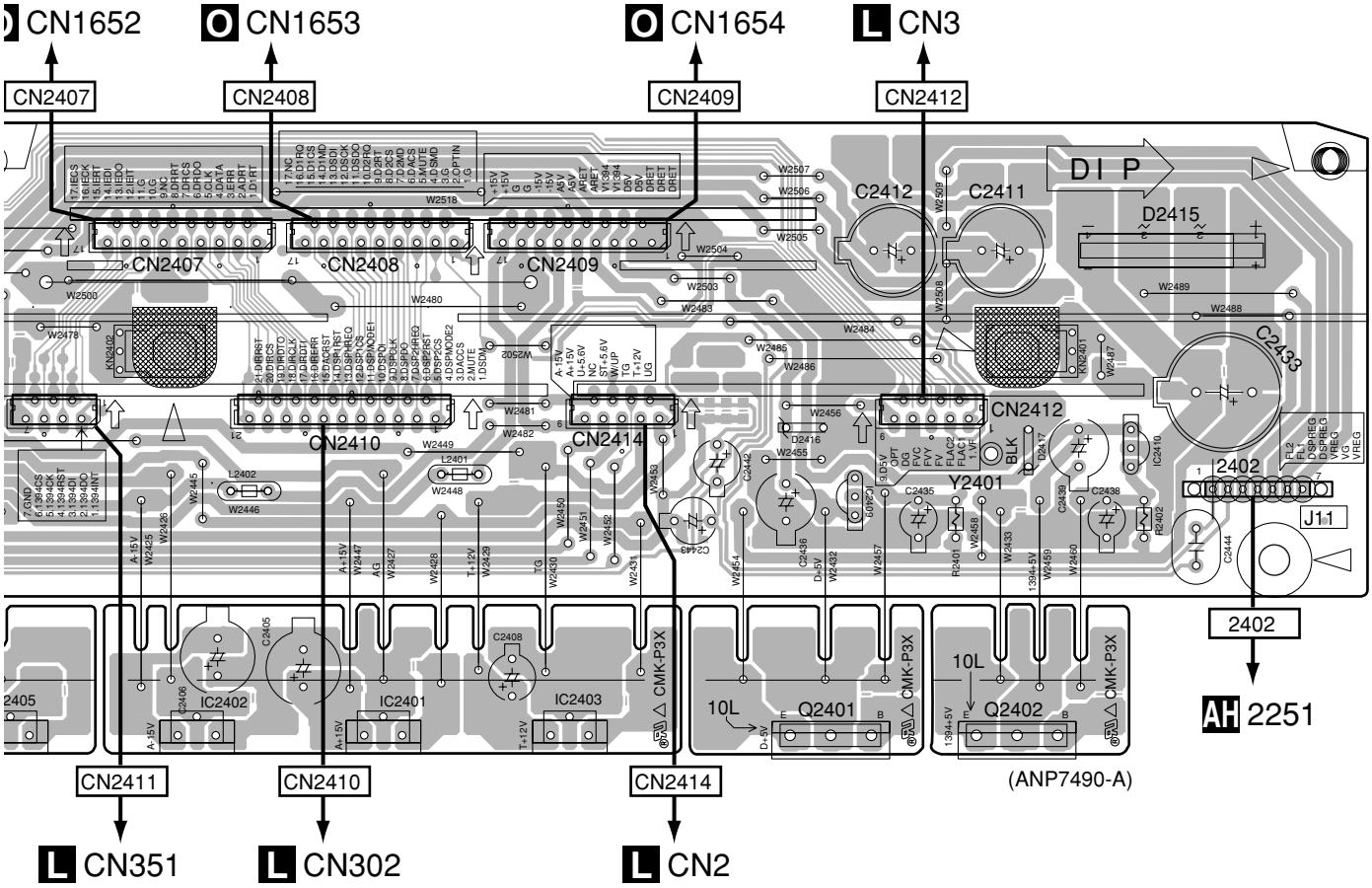
4.18 REGULATOR ASSY

SIDE A

• For VSX-AX5i-S



SIDE A

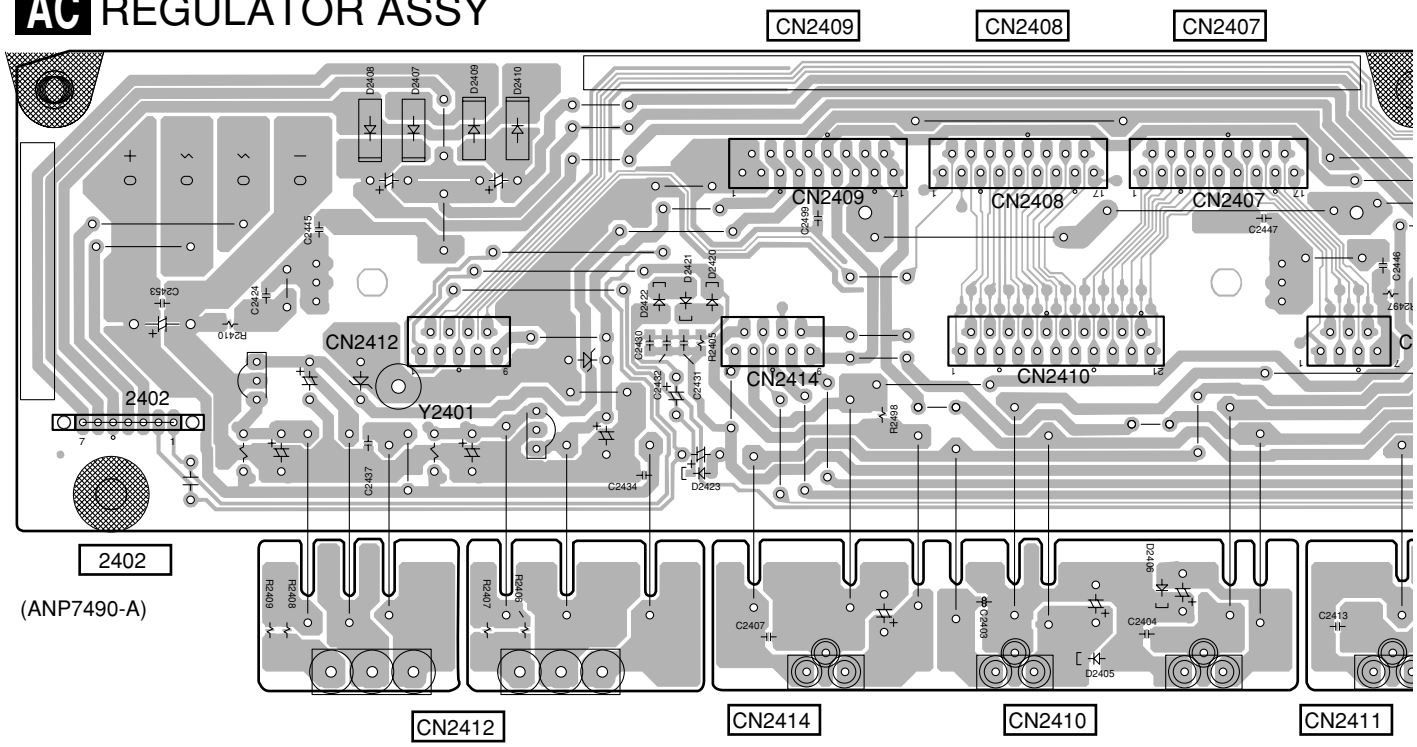


IC2405 IC2402 IC2401 IC2403 IC2409 Q2401 Q2402 IC2410

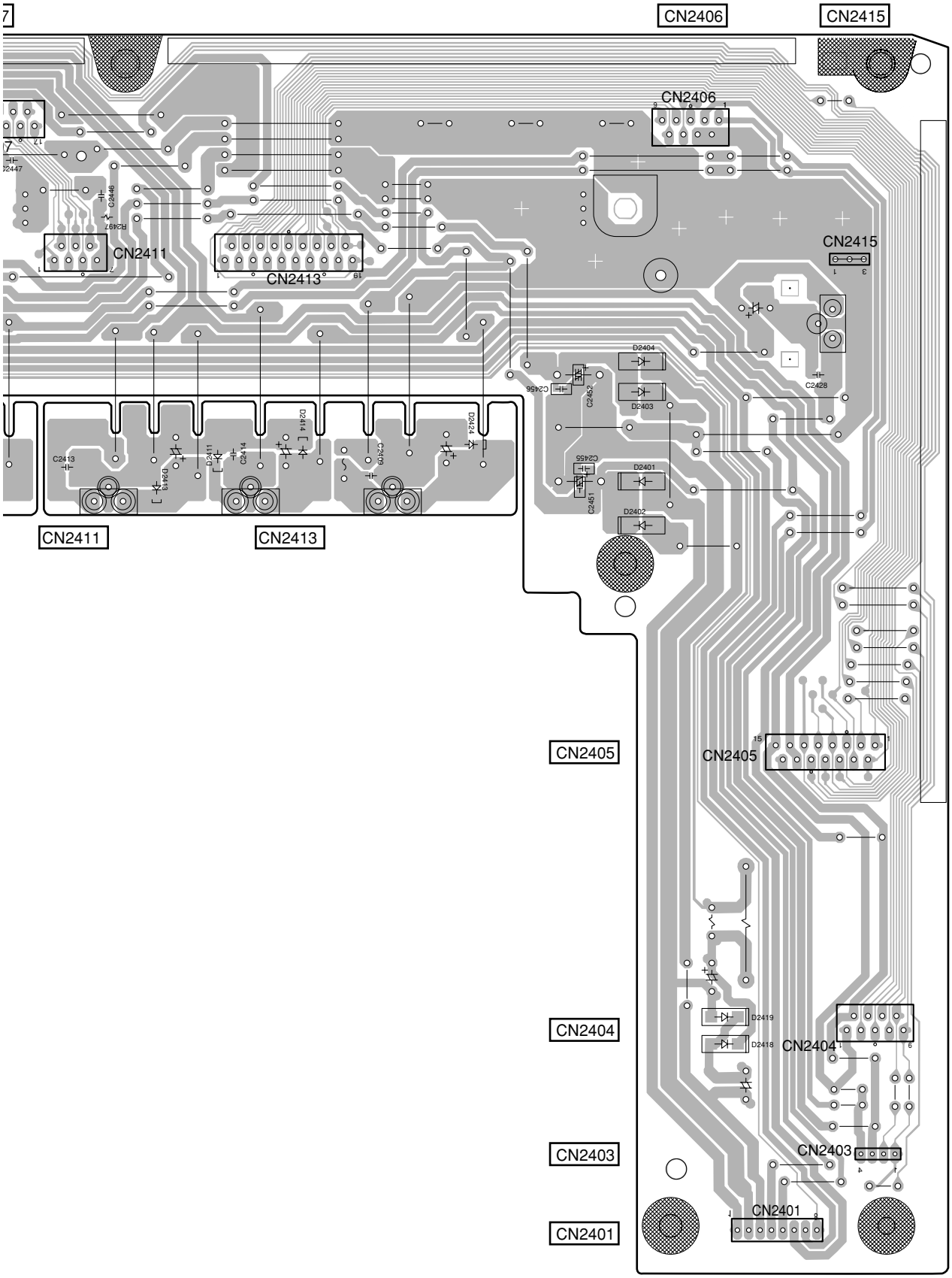
SIDE B

• For VSX-AX5i-S

AC REGULATOR ASSY

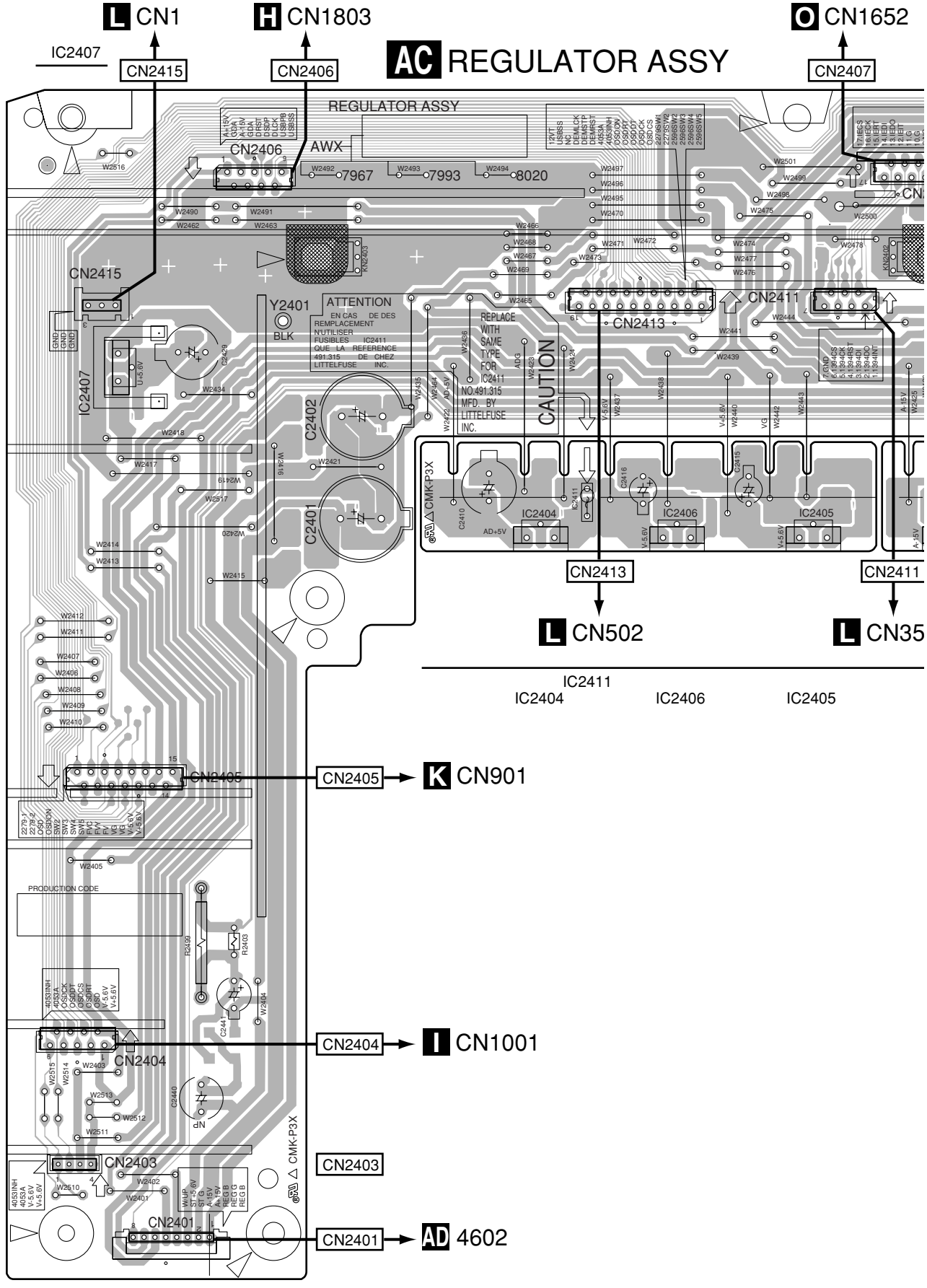


SIDE B


CN2406
CN2415
CN2411
CN2413
CN2405
CN2404
CN2403
CN2401
D2404
D2403
D2401
D2402
D2419
D2418
C2428
C2456
C2455
C2451
C2413
C2414
C2409
C2445
C2446
C2447
R2497
D2411
D2413
D2414
D2424

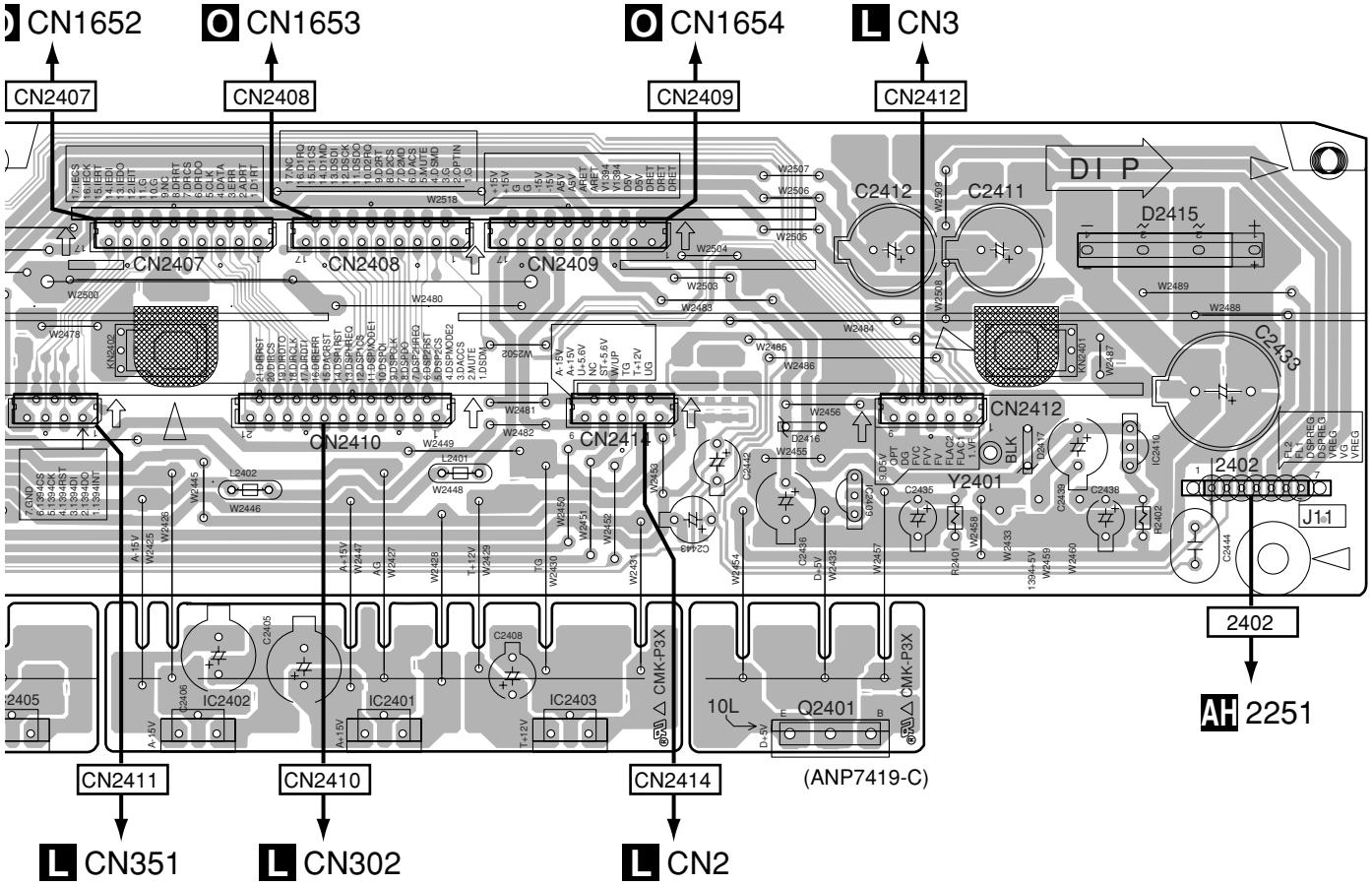
SIDE A

• For VSX-AX3-S, -K



AC

SIDE A



IC2409 IC2410

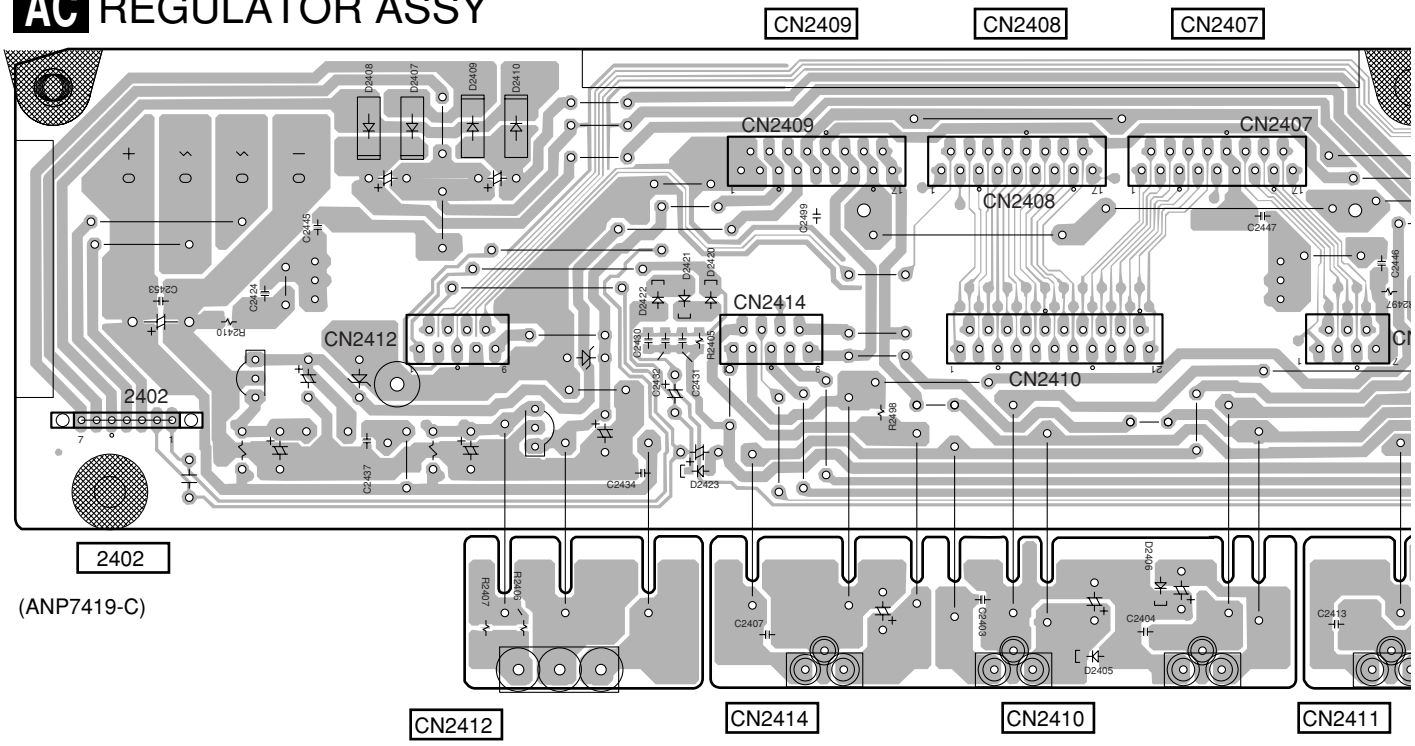
2405 IC2402 IC2401 IC2403 Q2401 Q2402

AC

SIDE B

• For VSX-AX3-S, -K

AC REGULATOR ASSY



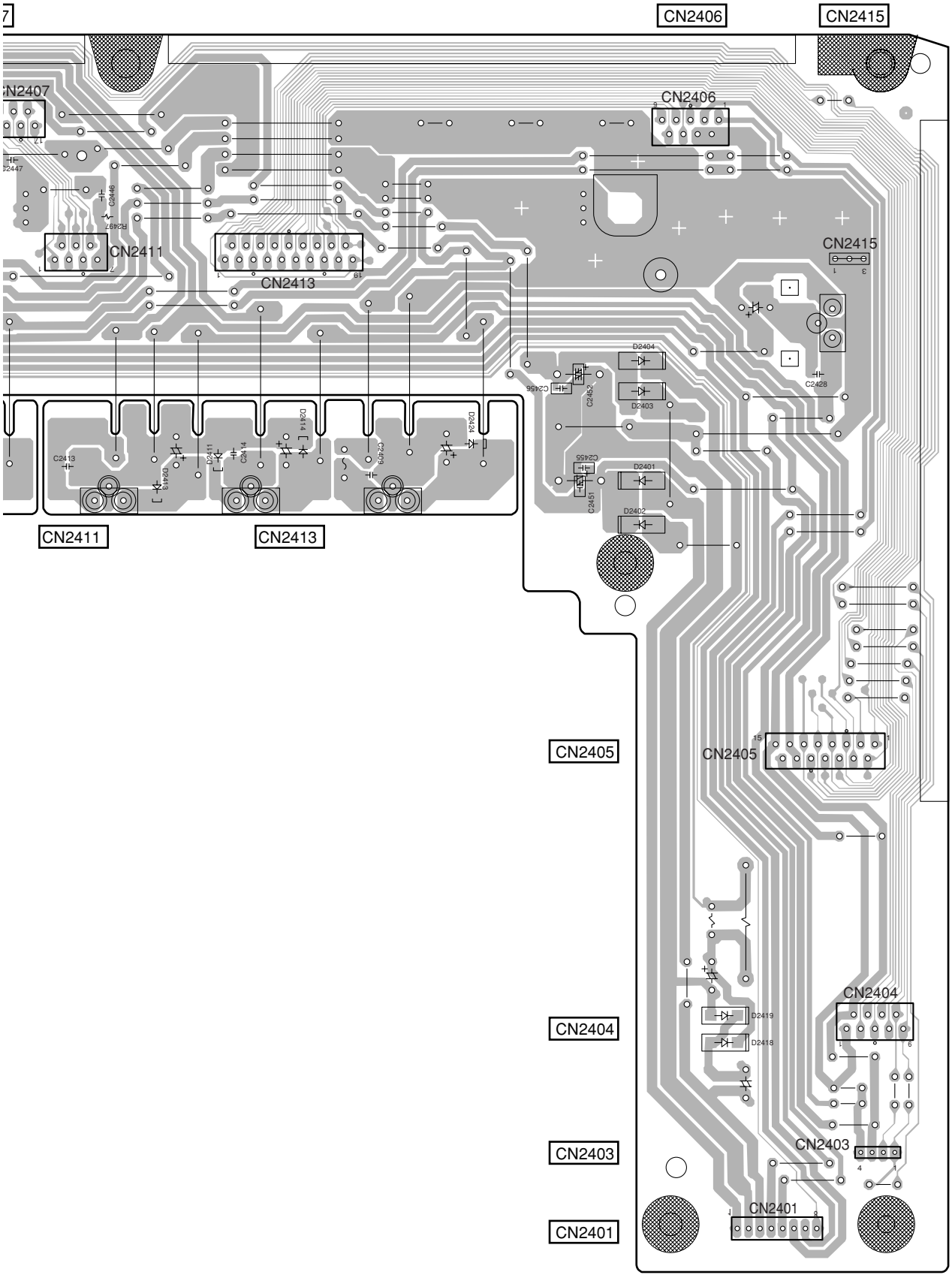
2402

(ANP7419-C)

CN2412 CN2414 CN2410 CN2411

AC

SIDE B

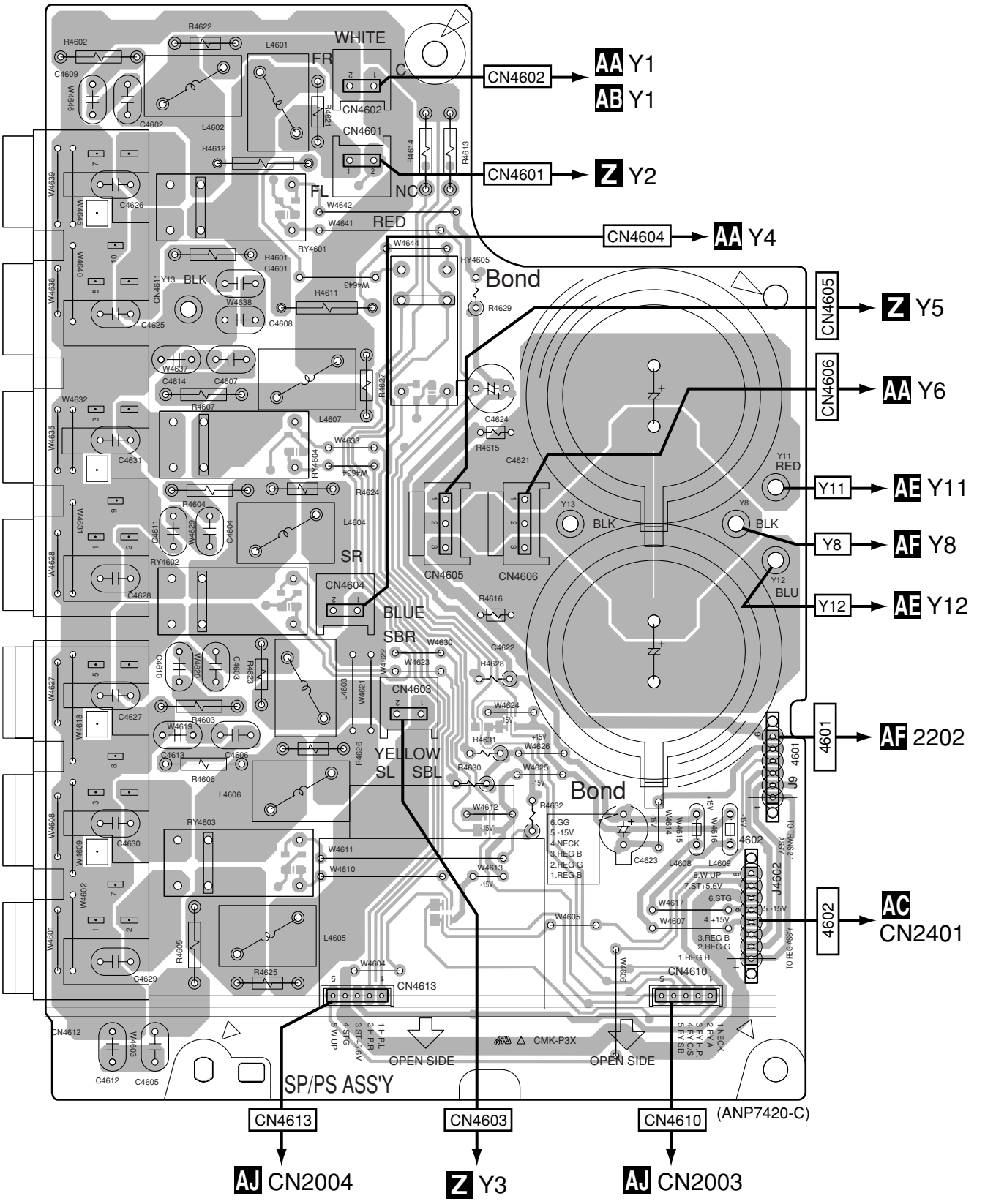

CN2406
CN2415
CN2407
CN2411
CN2413
CN2405
CN2404
CN2403
CN2401
D2404
D2403
D2401
D2402
D2419
D2418
C2428
C2456
C2454
C2455
C2451
C2413

5 6 7 8

4.19 SP/PS ASSY

SIDE A **SIDE A**

AD SP/PS ASSY

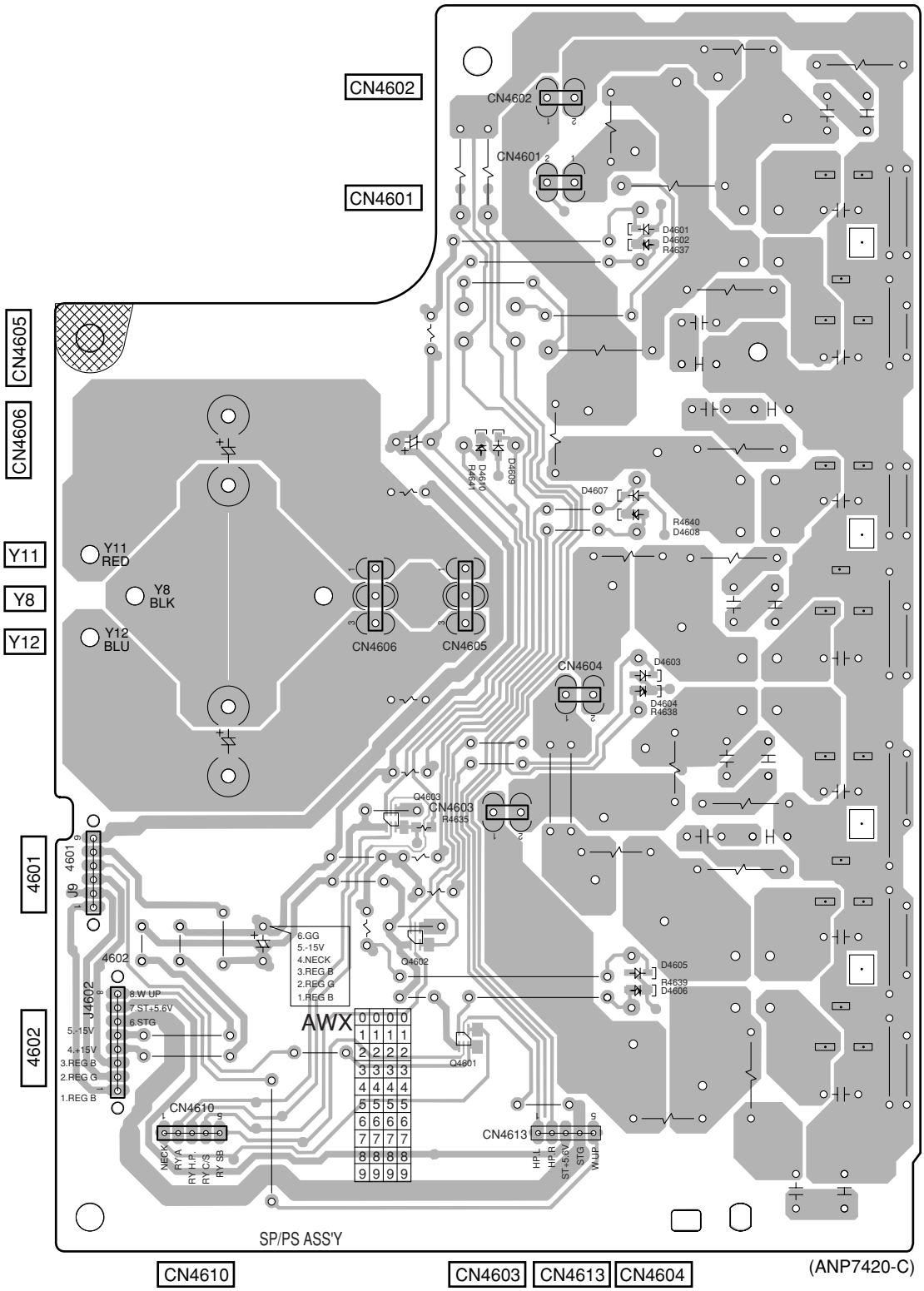


AD **AD**

SIDE B

SIDE B

AD SP/PS ASSY



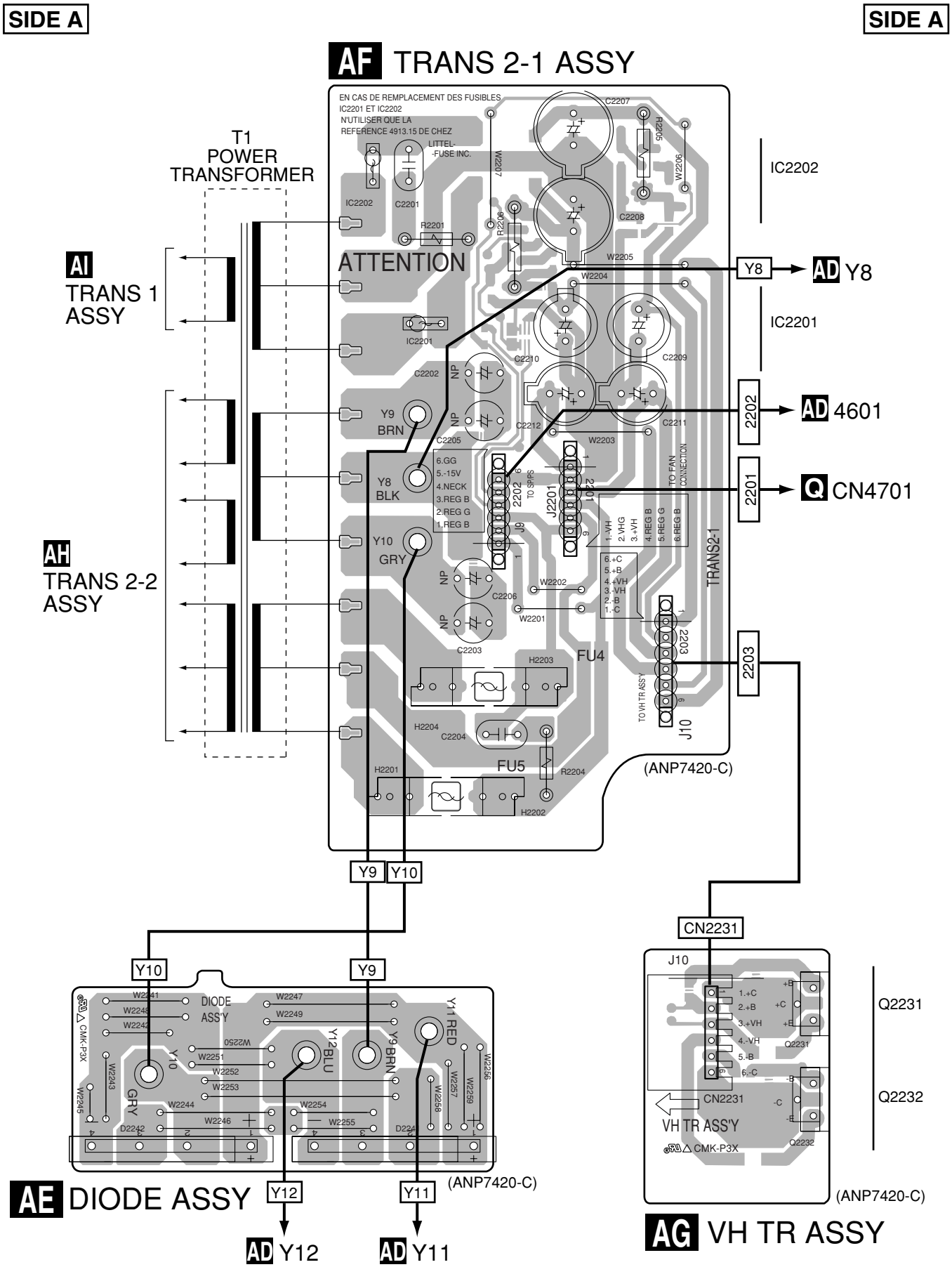
CN4610 CN4603 CN4613 CN4604

Q4603
Q4602
Q4601

AD

AD

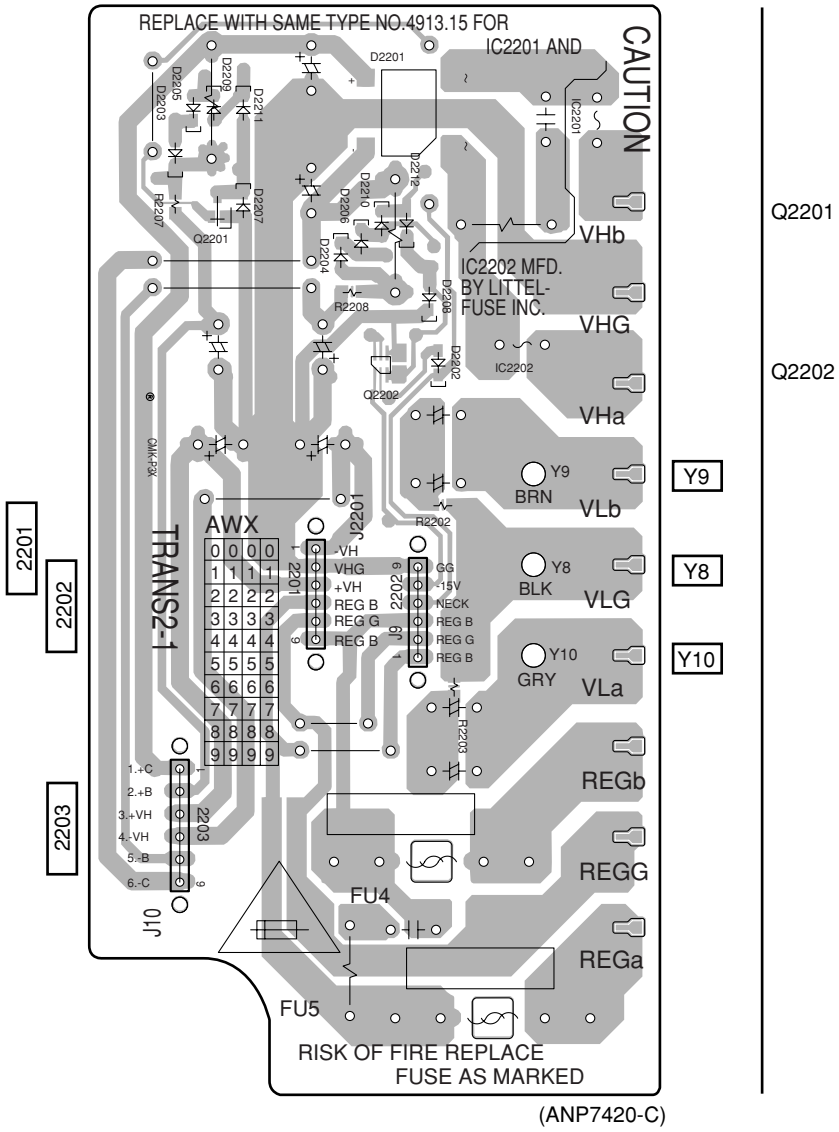
4.20 DIODE, TRANS 2-1 and VH TR ASSYS



SIDE B

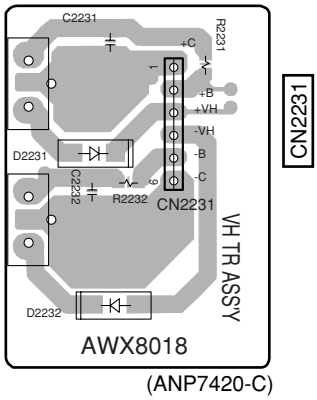
SIDE B

AF TRANS 2-1 ASSY

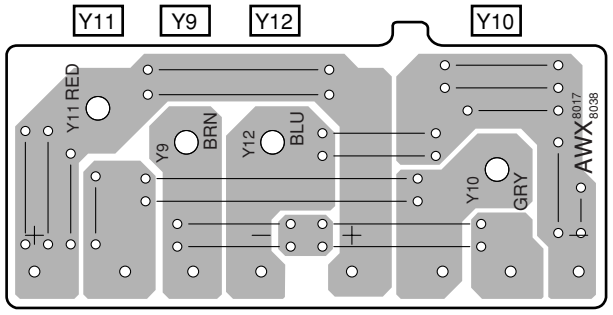


(ANP7420-C)

AG VH TR ASSY



(ANP7420-C)



(ANP7420-C)

AE DIODE ASSY

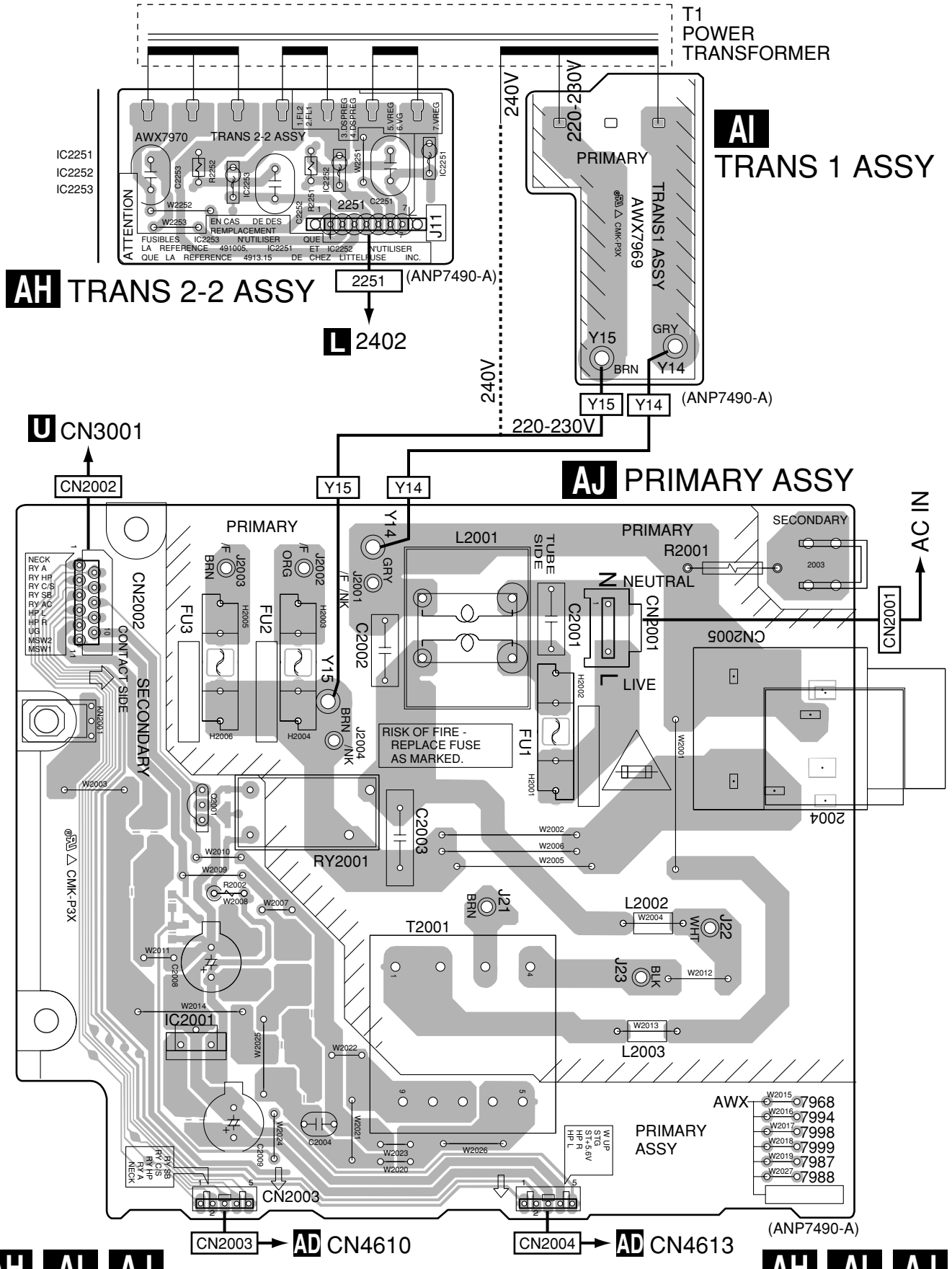
AE AF AG

AE AF AG

4.21 TRANS 2-2, TRANS 1 and PRIMARY ASSYS

SIDE A **SIDE A**

• For VSX-AX5i-S



SIDE B

SIDE B

• For VSX-AX5i-S

● Line Voltage Selection

Line Voltage can be changed by the following modification:

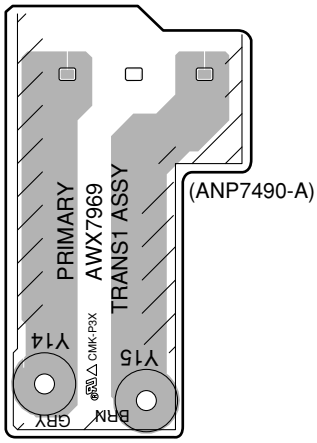
1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the connection wire from TRANS 1 ASSY to PRIMARY ASSY (Terminal No. Y15) as follows.

Voltage	Terminal No.
220-230V	Y15 of TRANS 1 ASSY
240V	240V terminal of power transformer

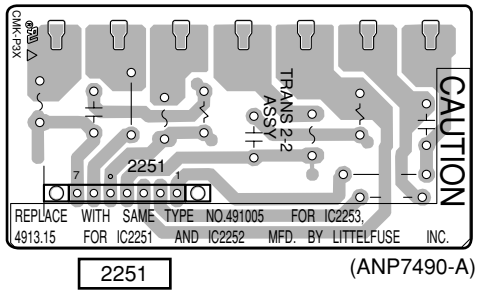
4. Stick a line voltage label on the rear panel.

Description	Part No.
220V label	AAX-193
240V label	AAX-192

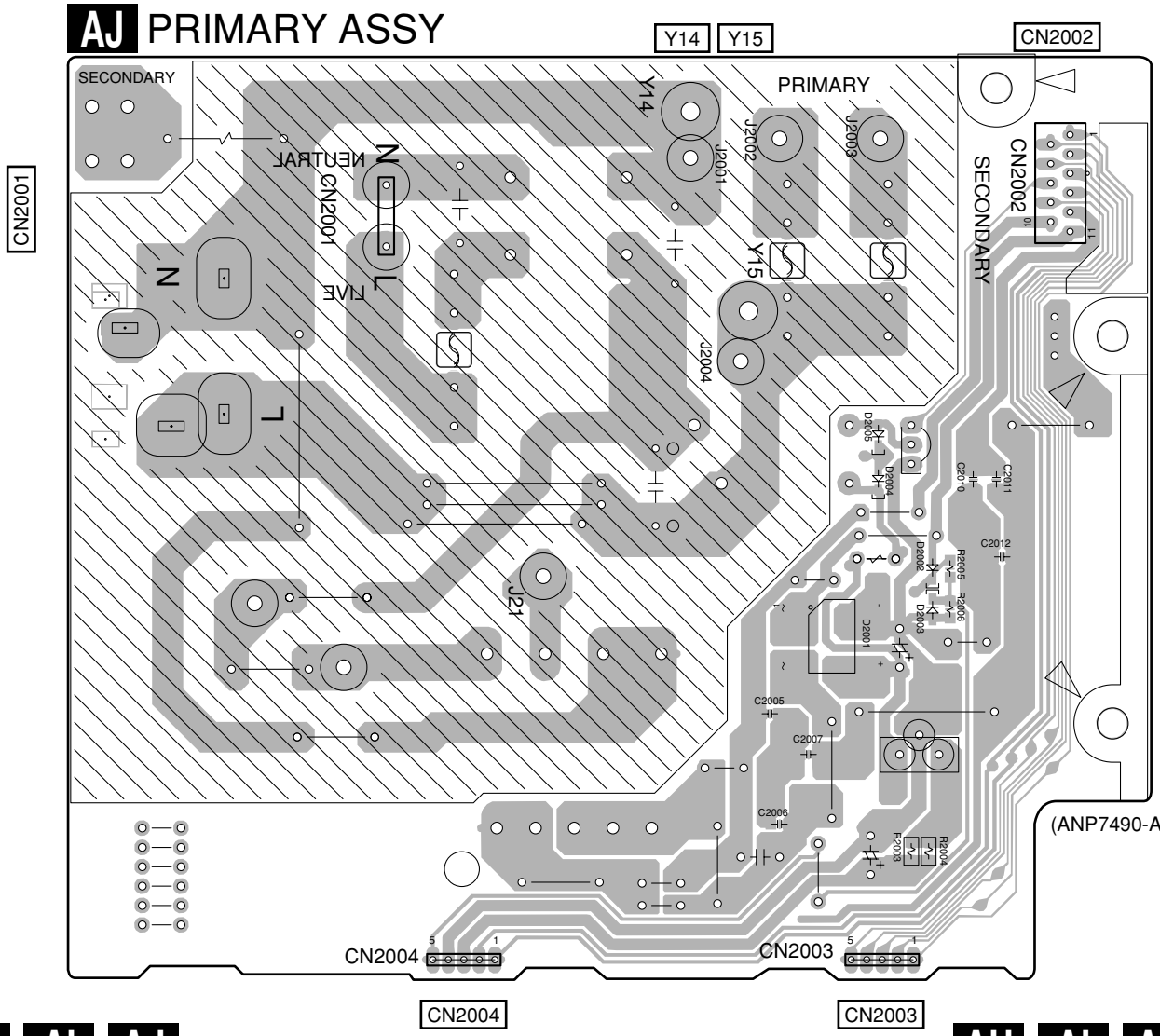
AI TRANS 1 ASSY



AH TRANS 2-2 ASSY

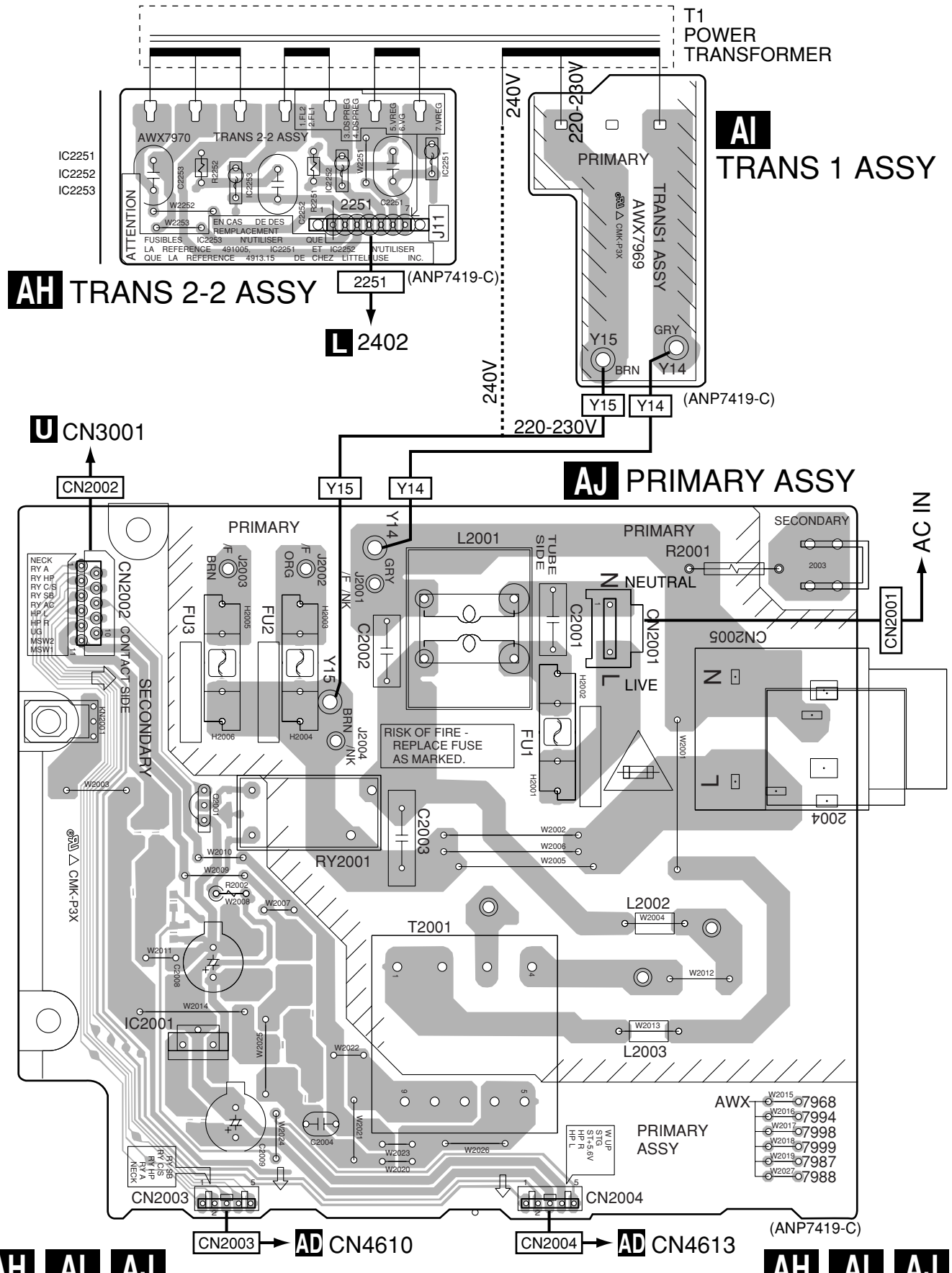


AJ PRIMARY ASSY



SIDE A **SIDE A**

• For VSX-AX3-S, -K



SIDE B

• For VSX-AX3-S, -K

● Line Voltage Selection

Line Voltage can be changed by the following modification:

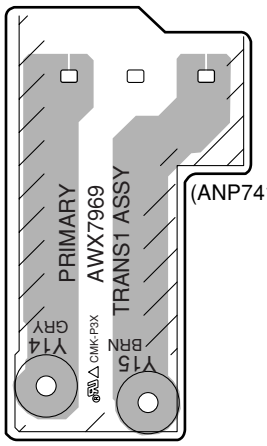
1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the connection wire from TRANS 1 ASSY to PRIMARY ASSY (Terminal No. Y15) as follows.

Voltage	Terminal No.
220-230V	Y15 of TRANS 1 ASSY
240V	240V terminal of power transformer

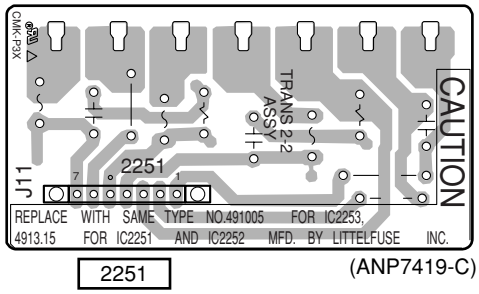
4. Stick a line voltage label on the rear panel.

Description	Part No.
220V label	AAX-193
240V label	AAX-192

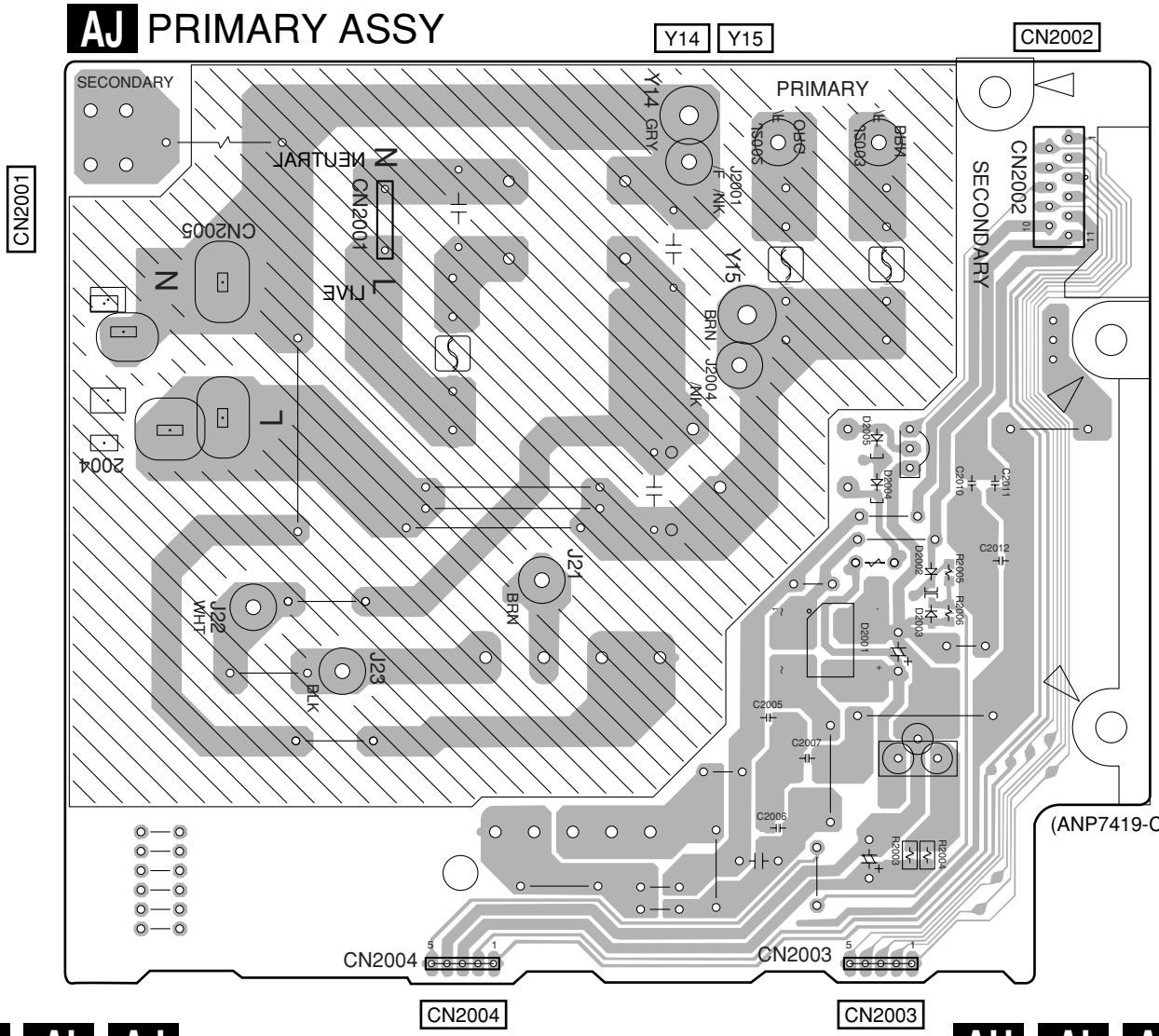
AI TRANS 1 ASSY



AH TRANS 2-2 ASSY



AJ PRIMARY ASSY

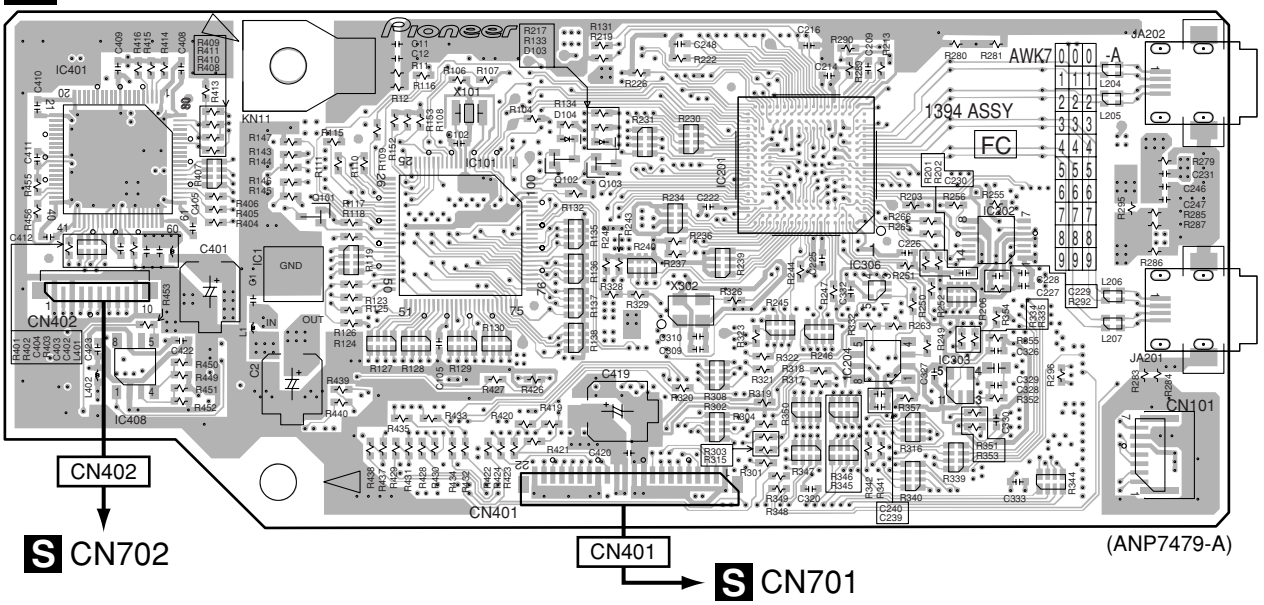


AH AI AJ

4.22 1394 ASSY (VSX-AX5i-S ONLY)

SIDE A **SIDE A**

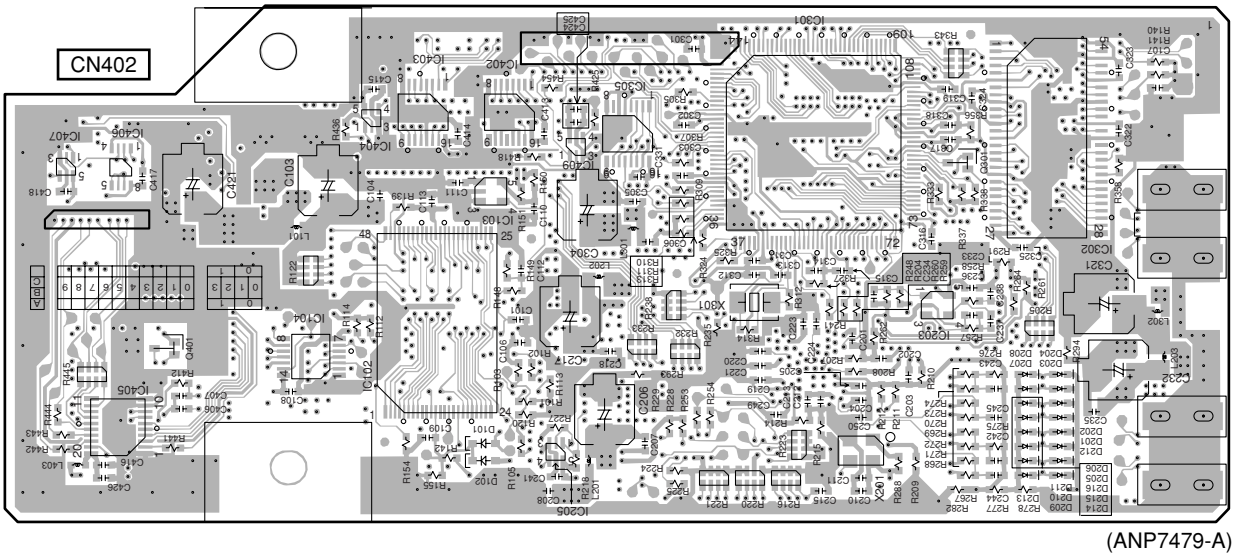
T 1394 ASSY



IC401 Q101 IC101 Q102 Q103 IC201 IC306 IC202
IC408 IC205 IC303

SIDE B **SIDE B**

T 1394 ASSY

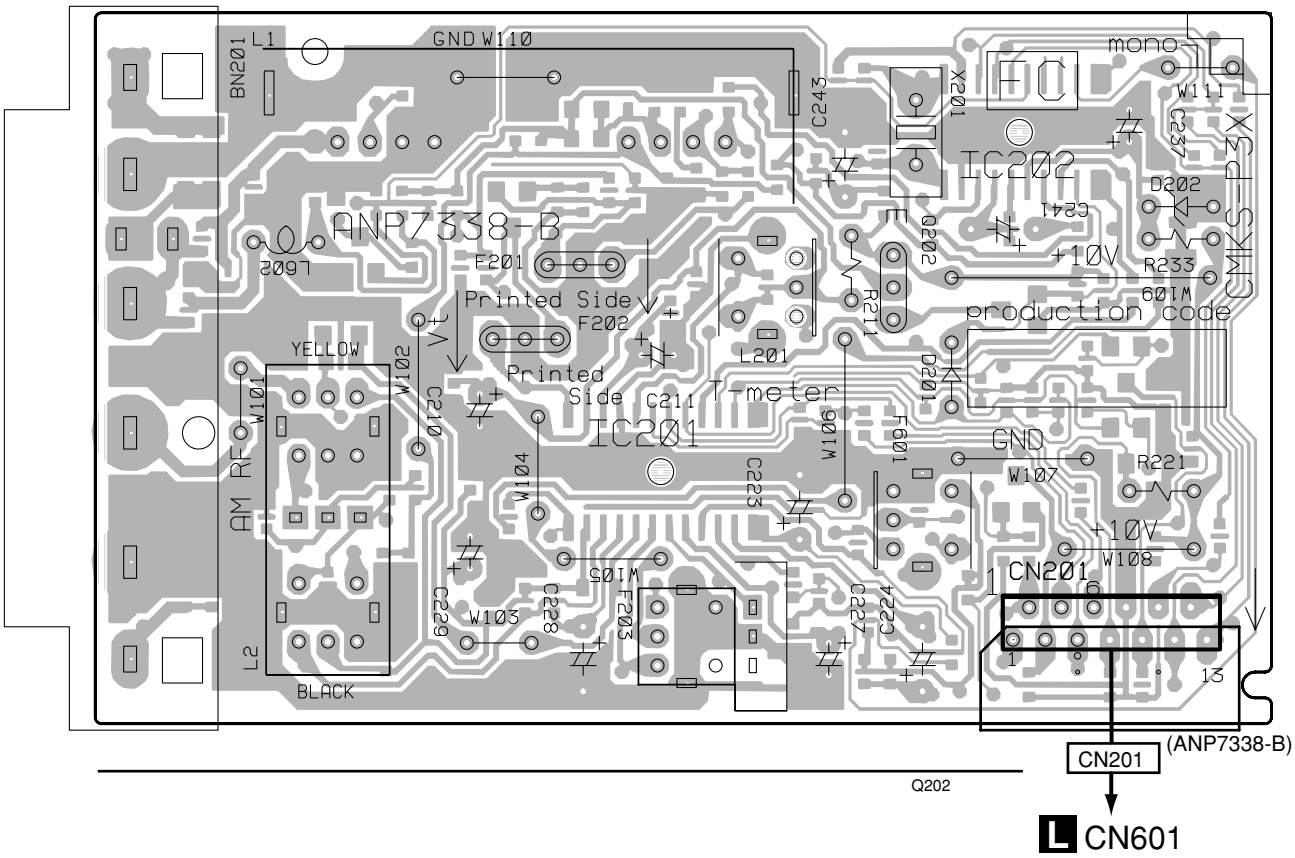


IC407 IC406 IC404 IC403 IC402 IC409 IC305 IC301 Q301
IC405 Q401 IC104 IC102 IC103 IC205 IC203

4.23 FM/AM TUNER MODULE

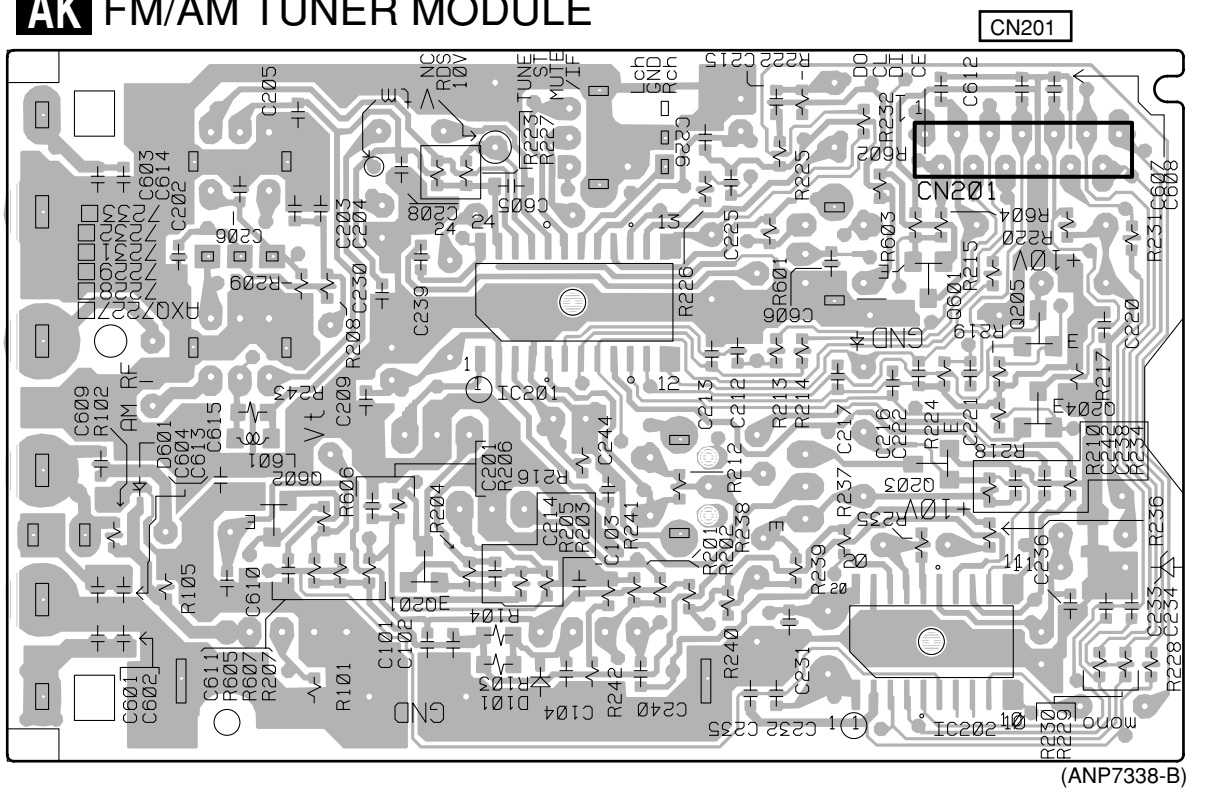
SIDE A

AK FM/AM TUNER MODULE



SIDE B

AK FM/AM TUNER MODULE



Q602 IC201 Q203 Q601 IC202 Q204 Q205

AK **AK**

5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10[1] → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 x 10[3] → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10[1] → 5621 ..... RN1/4PC 5 6 2 1 F

• LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	VSX-AX5i-S/ HYXJI	VSX-AX3-S/ HYXJI	VSX-AX3-K/ HYXJI
	1..FM/AM TUNER MODULE	AXQ7232	AXQ7232	AXQ7232
NSP	1..REGULATOR ASSY	AWK7786	AWK7738	AWK7738
	2..7.1 CH I/O ASSY	AWX8306	AWX7973	AWX7973
	2..POWER AMP IN ASSY	AWX7982	AWX7982	AWX7982
	2..FAN DRIVE ASSY	AWX8135	AWX8135	AWX8135
	2..REGULATOR ASSY	AWX8305	AWX8020	AWX8020
	2..TRANS 2-2 ASSY	AWX7970	AWX7970	AWX7970
	2..TRANS 1 ASSY	AWX7969	AWX7969	AWX7969
	2..PRIMARY ASSY	AWX7998	AWX7998	AWX7998
NSP	1..COMPLEX ASSY	AWK7790	AWK7796	AWK7796
	2..V-AUDIO IN ASSY	AWX8314	AWX7991	AWX7991
	2..FRONT IN ASSY	AWX8186	AWX8186	AWX8186
	2..OPTICAL IN ASSY	AWX7978	AWX7978	AWX7978
	2..INPUT CONNECT ASSY	AWX8041	AWX8041	AWX8041
	2..VOLUME ASSY	AWX7971	AWX7971	AWX7971
	2..MULTI JOG ASSY	AWX8015	AWX8015	AWX8015
	2..HEADPHONE ASSY	AWX7980	AWX7980	AWX7980
	2..SP/PS ASSY	AWX8308	AWX8039	AWX8039
	2..DIODE ASSY	AWX8017	AWX8017	AWX8017
	2..TRANS 2-1 ASSY	AWX8326	AWX8326	AWX8326
	2..VH TR ASSY	AWX8018	AWX8018	AWX8018
	2..MECHA SW ASSY	AWX7995	AWX7995	AWX7995
NSP	1..MAIN ASSY	AWK7778	AWK7782	AWK7782
	2..COAXIAL IN ASSY	AWX8300	AWX8323	AWX8323
	2..VIDEO ASSY	AWX8312	AWX8322	AWX8322
	2..COMPONENT ASSY	AWX8293	AWX8296	AWX8296
	2..MAIN CONTROL ASSY	AWX8287	AWX8291	AWX8291
	2..MIC & F.OPT IN ASSY	AWX7981	AWX7981	AWX7981
	2..MIC AMP ASSY	AWX8004	AWX8004	AWX8004
	2..DSP CONNECTION ASSY	AWX8299	AWX8024	AWX8024
	2..FAN CONNECTION ASSY	AWX8005	AWX8005	AWX8005
NSP	1..POWER AMP ASSY	AWK7793	AWK7763	AWK7763
	2..DISPLAY ASSY	AWX8316	AWX8147	AWX8147
	2..POWER AMP-L ASSY	AWX7984	AWX7984	AWX7984
	2..POWER AMP-R ASSY	AWX7985	AWX7985	AWX7985
	2..POWER AMP-C ASSY	AWX7986	AWX7986	AWX7986
	1..DSP ASSY	AWX8249	AWX8249	AWX8249
	1..1394 ASSY	AWK7768	Not used	Not used

• CONTRAST OF PCB ASSEMBLIES

A 7.1CH I/O ASSY

AWX8306 and AWX7973 are constructed the same except for the following :

Mark	Symbol and Description	AWX8306	AWX7973
	1301–1304 4P PIN JACK	AKB7075	Not used
	CN1301–CN1304 4P PIN JACK	Not used	AKB7015

B V-AUDIO IN ASSY

AWX8314 and AWX7991 are constructed the same except for the following :

Mark	Symbol and Description	AWX8314	AWX7991
	1201–1203 4P PIN JACK	AKB7075	Not used
	CN1201–CN1203 4P PIN JACK	Not used	AKB7015

H COAXIAL IN ASSY

AWX8300 and AWX8323 are constructed the same except for the following :

Mark	Symbol and Description	AWX8300	AWX8323
	IC1681	PCM2902EG	Not used
	IC1682	TC7SET08F	Not used
	C1680, C1697	CKSRYB103K50	Not used
	C1681	CEAT470M16	Not used
	C1683-C1686, C1689, C1690, C1698	CKSRYB104K16	Not used
	C1687	CCSRCH220J50	Not used
	C1688	CCSRCH180J50	Not used
	R1681	RS1/16S152J	Not used
	R1682, R1683	RS1/16S220J	Not used
	R1686	RS1/16S105J	Not used
	R1687	RS1/16S470J	Not used
	R1689	RS1/16S222J	Not used
	R1690	RS1/16S101J	Not used
	X1681 CRYSTAL RESONATOR (12.0MHz)	ASS7047	Not used
	JA1681 USB CONNECTOR	DKN1237	Not used
	JA1802 2P PIN JACK	AKB7148	AKB7131

K VIDEO ASSY

AWX8312 and AWX8322 are constructed the same except for the following :

Mark	Symbol and Description	AWX8312	AWX8322
	C922	CCSRCH181J50	Not used
	R915	RS1/16S0R0J	Not used
	R922	RS1/16S750J	Not used
	JA901–JA903 COMB. JACK (2S+2P)	AKB7160	AKB7147
	JA904 COMB. JACK (S+1P)	AKB7159	AKB7146
	JA905 1P PIN JACK	VKB1156	Not used

L MAIN CONTROL ASSY

AWX8287 and AWX8291 are constructed the same except for the following :

Mark	Symbol and Description	AWX8287	AWX8291
	IC501	PD5948A8	PD5899A
	Q101, Q102	2SC3326	Not used
	Q103	DTA124EK	Not used
	C139, C140	CCSRCH470J50	Not used
	R135, R136	RS1/16S912J	RS1/16S0R0J
	R137, R138	RS1/16S102J	Not used
	R141, R142	RS1/16S472J	Not used
	R143	RS1/16S473J	Not used

Mark	Symbol and Description	AWX8287	AWX8291
	R331, R352–R354, R356	RS1/16S221J	Not used
	R351	RS1/16S0R0J	Not used
	R355	RS1/16S101J	Not used
	R357, R358	Not used	RS1/16S0R0J
	R523, R526	Not used	RS1/16S473J
	R524, R525	RS1/16S473J	Not used
	JA111–JA113 4P PIN JACK	VKB1133	VKB1132

O DSP CONNECTION ASSY

AWX8299 and AWX8024 are constructed the same except for the following :

Mark	Symbol and Description	AWX8299	AWX8024
	IC1653	TC74LVX244FT	Not used
	L1652	QTL1013	Not used
	C1653	CKSRYB104K16	Not used
	R1655	Not used	RS1/16S0R0J
	R1656, R1676, R1678	RS1/16S0R0J	Not used
	R1659, R1660, R1662	RS1/16S151J	Not used

U DISPLAY ASSY

AWX8316 and AWX8147 are constructed the same except for the following :

Mark	Symbol and Description	AWX8316	AWX8147
	D3010	UDZS6.2B	Not used
	D3011	NSPB500-0008	Not used
	R3064	RS1/16S222J	Not used

AC REGULATOR ASSY

AWX8305 and AWX8020 are constructed the same except for the following :

Mark	Symbol and Description	AWX8305	AWX8020
⚠	IC2410	NJM78L05A	Not used
⚠	Q2402	2SA1803	Not used
⚠	D2421, D2422	UDZS15B	UDZ15B
	C2401, C1402	ACH7191	CEAT332M35
	C2433	ACH7192	CEAT472M16
	C2437	CKSRYB103K50	Not used
	C2438	CEAT2R2M50	Not used
	R2402	RD1/4MUF470J	Not used
	R2408, R2409	RS1/16S100J	Not used

AD SP/PS ASSY

AWX8307 and AWX7975 are constructed the same except for the following :

Mark	Symbol and Description	AWX8307	AWX7975
⚠	C4621, C4622	ACH7190	ACH7169
	CN4611 SP TERMINAL 8-P	AKE7099	AKE7074
	CN4612 SP TERMINAL 6-P	AKE7100	AKE7075

• PARTS LIST FOR VSX-AX5i-S

Mark	No.	Description	Part No.

REGULATOR ASSY [AWK7786]

OTHERS

Y15	BOARD IN JUMPER	ADX7418
Y14	BOARD IN JUMPER	ADX7419
J11	JUMPER WIRE 7P	D20PYY0745E

COMPLEX ASSY [AWK7790]

OTHERS

Y8	BOARD IN JUMPER	ADX7284
Y9	BOARD IN JUMPER	ADX7285
Y10	BOARD IN JUMPER	ADX7286
Y11	BOARD IN JUMPER	ADX7287
Y12	BOARD IN JUMPER	ADX7288
J9	JUMPER WIRE 6P	D20PYY0615E

A 7.1 CH I/O ASSY [AWX8306]

SEMICONDUCTORS

IC1301-IC1304	UPC4570G2
Q1351, Q1352, Q1361, Q1362	HN1C03F
Q1371, Q1372, Q1381, Q1382	HN1C03F

CAPACITORS

C1301-C1304, C1307, C1308	CCSRCH101J50
C1311-C1314, C1317, C1318	CCSRCH101J50
C1321-C1324, C1327, C1328	CCSRCH101J50
C1331-C1334, C1337, C1338	CCSRCH101J50
C1351, C1352, C1361, C1362	CCSRCH331J50
C1371, C1372, C1381, C1382	CCSRCH331J50
C1309, C1310, C1319, C1320	CEAT100M50
C1329, C1330, C1339, C1340	CEAT100M50
C1305, C1306, C1315, C1316	CEAT4R7M50
C1325, C1326, C1335, C1336	CEAT4R7M50
C1341-C1348, C1391-C1394	CKSRYB103K50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

1301-1304	4P PIN JACK	AKB7075
CN1306	5P SOCKET	AKP7066
CN1307,CN1308	9P SOCKET	AKP7068

B V-AUDIO IN ASSY [AWX8314]

CAPACITORS

C1201-C1212	CCSRCH221J50
C1213-C1215	CKSRYB103K50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

1201-1203	4P PIN JACK	AKB7075
CN1204	17P SOCKET	AKP7072

C FRONT IN ASSY [AWX8186]

Mark	No.	Description	Part No.

CAPACITORS

C1501, C1502	CCSRCH221J50
C1505	CKSRYB102K50
C1504, C1506	CKSRYB103K50
C1503	CKSRYB472K50
C1510	CKSRYB473K50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

CN1501	7P FFC CONNECTOR	52044-0745
JA1501	FRONT INPUT	AKX7016
KN1501	EARTH METAL FITTING	VNF1084

D OPTICAL IN ASSY [AWX7978]

COILS AND FILTERS

F1701 CHIP BEAD	DTF1064

CAPACITORS

C1706	CEAT470M16
C1701-C1705	CKSRYF104Z16

RESISTORS

All Resistors	RS1/16S###J

OTHERS

CN1701	9P FFC CONNECTOR	52045-0945
JA1701,JA1702	OPTICAL LINK IN	GP1FA502RZ
JA1703,JA1704	OPTICAL LINK OUT	GP1FA502TZ

E INPUT CONNECT ASSY [AWX8041]

SEMICONDUCTORS

IC1451	UPC4570G2

CAPACITORS

C1451, C1452	CEAT100M50
C1454, C1455	CKSRYB103K50
C1453	CKSRYB472K50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

CN1407	5P PLUG	AKP7055
CN1406,CN1408	9P PLUG	AKP7057
CN1405	17P PLUG	AKP7061
CN1404	9P SOCKET	AKP7068
CN1403	13P SOCKET	AKP7070
CN1401	15P SOCKET	AKP7071

H COAXIAL IN ASSY [AWX8300]

SEMICONDUCTORS

IC1681	PCM2902EG
IC1881	TC74HCU04AF
IC1682	TC7SET08F

COILS AND FILTERS

F1881 CHIP BEAD	DTF1064

CAPACITORS

Mark No.	Description	Part No.
C1688		CCSRCH180J50
C1687		CCSRCH220J50
C1885, C1886		CCSRCH470J50
C1887, C1896		CCSRCH471J50
C1681		CEAT470M16
C1890		CEAT470M25
C1680, C1697, C1857, C1858		CKSRYB103K50
C1883, C1884, C1888, C1897		CKSRYB103K50
C1683-C1686, C1689, C1690, C1698		CKSRYB104K16
C1889		CKSRYB105K6R3

RESISTORS

All Resistors		RS1/16S###J

OTHERS

CN1801	19P FFC CONNECTOR	52045-0945
JA1802	2P PIN JACK	AKB7148
CN1803	9P SOCKET	AKP7068
JA1681	USB CONNECTOR	DKN1237
CN1802	20P FFC CONNECTOR	VKN1196
X1681	CRYSTAL RESONATOR (12.0MHz)	ASS7047

I COMPONENT ASSY [AWX8293] for VSX-AX5i-S

SEMICONDUCTORS

IC1051		PDC084A
IC1001, IC1052		TC74HC4053AF
IC1002, IC1003		TK15450M
Q1051, Q1052		DTC124EK
D1051, D1052		1SS355

COILS AND FILTERS

L1051, L1052		LCYA100J2520
L1053		LCYA330J2520

CAPACITORS

C1060		CCSRCH101J50
C1055		CCSRCH150J50
C1056		CCSRCH180J50
C1057, C1058		CCSRCH240J50
C1024-C1026, C1059		CCSRCH470J50
C1017, C1018, C1023, C1029		CCSRCK2R0C50
C1013, C1014, C1019, C1020		CEAT101M16
C1027,C1028,C1051,C1053,C1063		CEAT101M16
C1007, C1008, C1015, C1016		CKSRYB103K50
C1021, C1022, C1065, C1066		CKSRYB103K50
C1052, C1054, C1061, C1062		CKSRYB473K50

RESISTORS

All Resistors		RS1/16S###J

OTHERS

CN1001	9P SOCKET	AKP7068
JA1001-JA1003	3P PIN JACK	VKB1151
X1051	CRYSTAL RESONATOR (14.32MHz)	ASS1056

I COMPONENT ASSY [AWX8296] for VSX-AX3-S, -K

SEMICONDUCTORS

Mark No.	Description	Part No.
IC1051		PDC084A
Q1051		DTC124EK
D1051, D1052		1SS355

COILS AND FILTERS

L1051, L1052		LCYA100J2520
L1053		LCYA330J2520

CAPACITORS

C1060		CCSRCH101J50
C1055		CCSRCH150J50
C1056		CCSRCH180J50
C1057, C1058		CCSRCH240J50
C1059		CCSRCH470J50
C1051, C1053, C1063		CEAT101M16
C1052, C1054, C1061, C1062		CKSRYB473K50

RESISTORS

All Resistors		RS1/16S###J

OTHERS

CN1001	9P SOCKET	AKP7068
1001	SCREW PLATE	VNE1948
X1051	CRYSTAL RESONATOR (14.32MHz)	ASS1056

K VIDEO ASSY [AWX8312]

SEMICONDUCTORS

IC933		BU4053BCF
IC901, IC931		NJM2296M
IC932		NJM2596M
IC903		TC4W53FU
Q901, Q931, Q932		2SA933S
Q933		IMZ1A
D901		DAN202K

CAPACITORS

C981–C983		CCSRCH101J50
C919, C960, C963		CCSRCH150J50
C922–C925, C969–C974		CCSRCH181J50
C955		CCSRCH330J50
C901–C904, C932, C935, C938		CEAT101M10
C941		CEAT101M10
C905, C906, C918, C945, C946		CEAT101M16
C951, C952, C959		CEAT101M16
C933, C936, C939, C942		CEAT1R0M50
C920, C961, C964		CEAT470M25
C943		CKSRYB103K50
C931, C934, C937, C940, C944		CKSRYB104K16
C966–C968		CKSRYB104K16
C907, C908, C915, C916, C921		CKSRYB473K50
C947, C948, C953, C954		CKSRYB473K50
C957, C958, C962, C965		CKSRYB473K50

RESISTORS

R920, R966		RD1/2VM221J
R969		RD1/2VM471J
Other Resistors		RS1/16S###J

OTHERS

JA904	COMB. JACK (S+1P)	AKB7159
JA901–JA903	COMB. JACK (2S+2P)	AKB7160
CN901	15P SOCKET	AKP7071

Mark	No.	Description	Part No.
	JA905	1P PIN JACK	VKB1156

L MAIN CONTROL ASSY [AWX8287]

SEMICONDUCTORS

	IC651	BU1923F
	IC502, IC503	BU4094BCF
	IC501	PD5948A8
	IC511	TC74VHC08FT
	IC302	TC74VHCT244AFT
	IC103	TC9163AF
	IC104	TC9215AF
	IC101	TC9274F-019
	IC701–IC704	TC94A07F
	IC102, IC711–IC714	UPC4570G2
	Q651	2SA1037K
	Q601	2SC1740S
	Q653	2SC2412K
	Q101, Q102	2SC3326
	Q103, Q511	DTA124EK
	Q501, Q652	DTC143EK
	D501, D511, D521–D524	1SS355
	D821, D822, D831, D832	1SS355
	D601	UDZS11B

COILS AND FILTERS

	L501	LCYA2R2J2520
	L651	LFCA2R2J
⚠	L891–L895 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C508 EDL CAPACITOR	ACH7132
	C113, C114, C125–C127	CCSRCH101J50
	C151–C153, C725–C727	CCSRCH101J50
	C745–C747, C765–C767	CCSRCH101J50
	C785–C787	CCSRCH101J50
	C103–C112, C115, C116	CCSRCH221J50
	C651, C652	CCSRCH270J50
	C117, C118, C139, C140, C662	CCSRCH470J50
	C719, C720, C739, C740	CCSRCH680J50
	C759, C760, C779, C780	CCSRCH680J50
	C131, C132, C621, C622	CEAT100M50
	C701, C702, C713, C714	CEAT100M50
	C733, C734, C753, C754	CEAT100M50
	C773, C774	CEAT100M50
	C654	CEAT101M10
	C303, C304, C602	CEAT101M16
	C657	CEAT1R0M50
	C506, C513	CEAT221M10
	C505, C655	CEAT2R2M50
	C503	CEAT331M10
	C717, C718, C721, C722	CEAT470M25
	C737, C738, C741, C742	CEAT470M25
	C757, C758, C761, C762	CEAT470M25
	C777, C778, C781, C782	CEAT470M25
	C133, C134	CEAT470M50
	C511	CEAT471M10
	C748, C749, C768, C769	CEV100M16
	C788, C789	CEV100M16
	C510	CKSQYF105Z16
	C601	CKSQYF225Z16
	C653	CKSRYB102K50
	C128, C129, C137, C138	CKSRYB103K50
	C155–C157, C302, C502, C507	CKSRYB103K50
	C509, C514, C515, C535, C540	CKSRYB103K50
	C598, C711, C712, C723, C724	CKSRYB103K50
	C731, C732, C743, C744	CKSRYB103K50
	C751, C752, C763, C764	CKSRYB103K50
	C771, C772, C783, C784	CKSRYB103K50
	C891, C892	CKSRYB103K50
	C512, C656	CKSRYB472K50
	C154, C599, C821, C831	CKSRYB473K50
	C658	CKSRYB561K50

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN552 10P FFC CONNECTOR	52045-1045
	CN601 13P FFC CONNECTOR	52045-1345
	CN801 24P FFC CONNECTOR	52045-2445
	CN501 32P FFC CONNECTOR	52045-3245
	CN103 9P PLUG	AKP7057
	CN102 13P PLUG	AKP7059
	CN101 15P PLUG	AKP7060
	CN351 7P SOCKET	AKP7067
	CN2, CN3 9P SOCKET	AKP7068
	CN502 19P SOCKET	AKP7073
	CN302 21P SOCKET	AKP7074
	CN1 3P PLUG	KM250NA3L
	JA591 REMOTE CONTROL JACK	RKN1004
	JA592 REMOTE CONTROL JACK	RKN1026
	JA111–JA113 4P PIN JACK	VKB1133
	CN301 21P FFC CONNECTOR	VKN1197
	X651 CERAMIC RESONATOR (4.332MHz)	ASS7004
	X501 CERAMIC RESONATOR (15.7MHz)	ASS7032

M MIC & F.OPT IN ASSY [AWX7981]

COILS AND FILTERS

	L1601 CHIP FERRITE BEAD	ATL7002
⚠	L1602, L1603 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C1601, C1606	CCSRCH471J50
	C1603	CEAL470M16
	C1611	CKSRYB102K50
	C1602, C1612, C1614	CKSRYB103K50

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN1601 4P FFC CONNECTOR	52044-0445
	J1601 CORD WITH PLUG	ADX7417
	JA1601 OPTICAL LINK IN	GP1FA502RZ
	JA1606 REMOTE CONTROL JACK	RKN1004
	CN1602 KR CONNECTOR	S3B-PH-K

N MIC AMP ASSY [AWX8004]

Mark	No.	Description	Part No.
SEMICONDUCTORS			
⚠	IC4751		NJM78L05A
	IC4752		UPC4570G2
	D4751, D4752		UDZS5.1B
CAPACITORS			
	C4753		CCSRCH101J50
	C4754		CCSRCH330J50
	C4751, C4752, C4755-C4757		CEAT100M50
	C4758, C4762-C4765		CKSRYB473K50
RESISTORS			
	R4756		RD1/4MUF471J
	Other Resistors		RS1/16S###J
OTHERS			
	CN4752	4P JUMPER CONNECTOR	52147-0410
	CN4751	KR CONNECTOR	B3B-PH-K
		PCB BINDER	VEF1040
	KN4751	EARTH METAL FITTING	VNF1084

O DSP CONNECTION ASSY [AWX8299]

SEMICONDUCTORS			
	IC1651, IC1653		TC74LVX244FT
COILS AND FILTERS			
	L1651, L1652		QTL1013
CAPACITORS			
	C1651		CKSRYB103K50
	C1653		CKSRYB104K16
RESISTORS			
	All Resistors		RS1/16S###J
OTHERS			
	CN1652-CN1654	17P SOCKET	AKP7072
	CN1651	B TO B CONNECTOR 50P	AKP7177

P POWER AMP IN ASSY [AWX7982]

SEMICONDUCTORS			
	Q4001		2SC2412K
	D4001		1SS355
CAPACITORS			
	C4002		CKSRYB104K16
	C4001		CKSRYB223K50
RESISTORS			
	All Resistors		RS1/16S###J
OTHERS			
	4001	10P CABLE HOLDER	51048-1000
	CN4001	24P FFC CONNECTOR	52044-2445
	CN4003	17P PLUG	AKP7061
	CN4002	19P PLUG	AKP7062
	J12	JUMPER WIRE 10P	D20PYY1010E
	CN4004	3P L TYPE PLUG	KM250MA3L

Q FAN CONNECTION ASSY [AWX8005]

SEMICONDUCTORS			
⚠	IC4701, IC4702		AEK7023
	PROTECTOR(200mA)		
OTHERS			
	4701	9P CABLE HOLDER	51048-0900
	CN4701	6P JUMPER CONNECTOR	52147-0610
	J4701	JUMPER WIRE 9P	D20PYY0915E
	CN4702	3P PLUG	KM250MA3

R FAN DRIVE ASSY [AWX8135]

SEMICONDUCTORS			
	Q4056		2SA1037K
	Q4051		2SC4793D1
	Q4052		DTA124EK
	Q4055		DTC114EK
	Q4053		DTC124EK
⚠	D4051, D4052		1SR154-400
	D4058, D4059		1SS355
	D4055		UDZS12B
	D4053		UDZS27B
	D4057		UDZS5.1B
CAPACITORS			
	C4054		CEAT101M16
	C4052		CEAT1R0M50
	C4055, C4056		CEAT331M63
	C4051		CEAT471M35
	C4053		CKSRYB103K50
RESISTORS			
	All Resistors		RS1/16S###J
OTHERS			
	CN4051	9P JUMPER CONNECTOR	52147-0910
	CN4054	10P JUMPER CONNECTOR	52147-1010

S DSP ASSY [AWX8249]

SEMICONDUCTORS			
	IC201		AK4114VQ
	IC561		AK4382AVT
	IC501, IC521, IC541		AK4383VT
	IC101		AK5380VT
	IC301, IC401		DSPC56367PV150
	IC451		IC61LV25616-12T
	IC302		IC61LV6416-12T
	IC303		IC63LV1024-12T
⚠	IC901		NJM2391DL1-33
	IC601, IC621, IC641, IC661, IC681		NJM4565MD
⚠	IC902		NJU7223DL1-18
	IC471		PD8118A
	IC701		TC74VHC157FT
	IC304		TC74VHCU04FT
	IC503, IC705, IC706		TC7SH04FU
	IC305		TC7WH125FU
	Q681, Q682		2SK208
	Q683, Q701, Q971, Q972, Q974		UN5112
	Q684, Q702, Q973		UN5212
	Q601, Q621, Q641, Q661		XP4506
	D681, D682, D721		1SS355
	D702		DAN202K
	D701, D971, D972		DAP202K
	D101–D104		RB501V-40

Mark	No.	Description	Part No.
COILS AND FILTERS			
	L301–L304, L401, L402, L451		ATL7002
	L471, L904, L906, L907		ATL7002
		CHIP FERRITE BEAD	
	L101–L104, L201–L203		QTL1013
	L305, L306, L501, L503, L511		QTL1013
	L521, L531, L541, L551, L561		QTL1013
	L571, L701, L705, L706		QTL1013
		CHIP SOLID INDUCTOR	
CAPACITORS			
	C339, C340		CCSRCH100D50
	C202		CCSRCH150J50
	C623, C625, C643–C646		CCSRCH151J50
	C663–C666		CCSRCH151J50
	C201		CCSRCH220J50
	C204, C206, C209, C301, C302		CCSRCH471J50
	C304, C306, C308, C309, C312		CCSRCH471J50
	C314, C316, C318, C319		CCSRCH471J50
	C321, C322, C325, C326		CCSRCH471J50
	C329, C330, C332, C333, C335		CCSRCH471J50
	C345, C346, C402, C404–C408		CCSRCH471J50
	C410–C418, C420–C422		CCSRCH471J50
	C424–C426, C471		CCSRCH471J50
	C603–C606		CCSRCH820J50
	C111, C112, C502, C522, C542		CEV100M16
	C562, C607, C608, C627, C628		CEV100M16
	C647, C648, C667, C668		CEV100M16
	C681, C682		CEV100M16
	C104, C105, C551, C907, C909		CEV101M16
	C106		CEV2R2M50
	C901, C902		CEV330M25
	C210, C341, C401		CEV470M6R3
	C212, C614, C618, C624, C626		CKSRYB102K50
	C683–C685, C689, C693, C695		CKSRYB102K50
	C927		CKSRYB102K50
	C337, C343, C349, C429, C503		CKSRYB103K50
	C619, C620, C677, C678, C701		CKSRYB103K50
	C711–C716, C747, C921, C922		CKSRYB103K50
	C941		CKSRYB103K50
	C101–C103, C205, C207, C208		CKSRYB104K16
	C211, C305, C307, C310, C311		CKSRYB104K16
	C313, C315, C324, C331, C334		CKSRYB104K16
	C352, C409, C419, C423, C427		CKSRYB104K16
	C451, C452, C501, C521, C541		CKSRYB104K16
	C561, C591, C630, C705, C706		CKSRYB104K16
	C906, C908		CKSRYB104K16
	C303, C338, C348, C403, C599		CKSRYB105K6R3
	C702		CKSRYB105K6R3
	C109, C110, C622		CKSRYB222K50
	C601, C602, C609, C610		CKSRYB332K50
	C621, C641, C642, C661, C662		CKSRYB392K50
	C629, C649, C650, C669, C670		CKSRYB472K50
	C971		CKSRYB472K50
	C926		CKSRYB473K16
	C203		CKSRYB474K10
	C323, C428		CKSRYB563K16
	C107, C611–C613, C615		CKSRYF104Z25
	C671, C672, C694, C696–C698		CKSRYF104Z25

Mark	No.	Description	Part No.
RESISTORS			
	R851		RAB4C101J
	R204, R225, R226, R229, R701		RAB4C104J
	R712		RAB4C104J
	R221		RS1/16S1802F
	Other Resistors		RS1/16S###J
OTHERS			
	CN102	B TO B CONNECTOR 50P	AKP7176
	X201	CRYSTAL RESONATOR (24MHz)	ASS7025
	X301	CRYSTAL RESONATOR (33MHz)	ASS7040
	CN702	10P FFC CONNECTOR	VKN1414
	CN101	20P FFC CONNECTOR	VKN1424
	CN601	21P FFC CONNECTOR	VKN1425
	CN701	22P FFC CONNECTOR	VKN1426
	KN931	EARTH METAL FITTING	VNF1109

T 1394 ASSY [AWK7768]

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC302		K4S641632F-TC75
⚠	IC1		NJM2391DL1-33
	IC303		NJU7093AF
	IC101		PD5787A
	IC301		PD8112A
	IC103		PST9245
	IC401		SM5816AF
	IC405		TC74VHC541FT
	IC104		TC74VHCT125AFT
	IC205		TC7SH08FU
	IC409		TC7SZ126FU
	IC201		TSB43CA42GGW
	Q101, Q301		DTA124EUA
	Q401		DTA143EUA
	D102		RB501V-40
COILS AND FILTERS			
	L1, L101, L201–L203		ATL7002
	L301, L302, L401, L403		ATL7002
		CHIP FERRITE BEAD	
⚠	L204–L207	COIL	VTH1043
CAPACITORS			
	C329 (10u/6.3V)		ACG7046
	C2, C401 (220u/6.3V)		ACH7195
	C242, C243		CCSRCH221J50
	C402		CCSRCH471J50
	C419		CEV101M16
	C103, C206, C217, C232, C304		CEVL101M6R3
	C321		CEVL101M6R3
	C113, C211, C213, C215, C216		CKSRYB102K50
	C310, C324		CKSRYB102K50
	C101, C111		CKSRYB103K50
	C1, C102, C104–C110		CKSRYB104K16
	C201–C205, C207, C209, C210		CKSRYB104K16
	C212, C214, C218–C226, C235		CKSRYB104K16
	C241, C246–C249, C301–C303		CKSRYB104K16
	C305, C309, C311, C315–C320		CKSRYB104K16
	C322, C323, C325, C327, C333		CKSRYB104K16
	C404, C405, C408–C412, C416		CKSRYB104K16
	C420, C424		CKSRYB104K16
	C244, C245, C326		CKSRYB105K6R3

Mark No.	Description	Part No.
C330		CKSRYB472K50
C328		CKSRYB474K10
RESISTORS		
R119, R127–R130, R205		RAB4C101J
R230–R233, R245, R246, R445		RAB4C101J
R122		RAB4C103J
R407		RAB4C221J
R308, R339, R340, R343–R347		RAB4C470J
R350		RAB4C470J
R135–R138, R206, R216		RAB4C472J
R220, R221, R223, R234		RAB4C472J
R238–R240		RAB4C472J
R302, R402		RAB4C680J
R275, R276		RS1/16S5101F
R267–R274		RS1/16S56R0D
R213		RS1/16S6341D
Other Resistors		RS1/16S###J
OTHERS		
CN101	7P CONNECTOR	RKN1048
CN402	10P CONNECTOR	VKN1414
CN401	22P CONNECTOR	VKN1426
JA201, JA202	1394-TERMINAL	VKN1800
X302	CRYSTAL RESONATOR (22.5792MHz)	ASS7054
X201	CRYSTAL RESONATOR (24.5760MHz)	ASS7055
X101	CERAMIC RESONATOR (6.14MHz)	VSS1179

U DISPLAY ASSY [AWX8316]

Mark No.	Description	Part No.
SEMICONDUCTORS		
IC3000		PD5771B
IC3002		RPM7140-H4
Q3003		2SA1037K
Q3002		DTC124EK
Q3004		HN1C01FU
D3006-D3008		1SS355
D3001		BR5064X
D3009		DAN202K
D3000		MAA5064X
D3011		NSPB500-0008
D3010		UDZS6.2B
COILS AND FILTERS		
L3000	CHIP FERRITE BEAD	ATL7002
SWITCHES AND RELAYS		
S3000-S3017		ASG7013
CAPACITORS		
C3003, C3004, C3007, C3024, C3025		CCSRCH101J50
C3020, C3021, C3026, C3027		CEJQ100M16
C3028, C3029		CEJQ101M10
C3008, C3012, C3035		CEJQ101M6R3
C3022, C3023		CEJQ330M25
C3000-C3002		CKSRYB102K50
C3009, C3011, C3032-C3034		CKSRYB103K50
C3036, C3037		CKSRYB103K50
C3006, C3031		CKSRYB104K16
C3030		CKSRYF104Z50
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
3008	4P CABLE HOLDER	51048-0400
3002	5P CABLE HOLDER	51048-0500
3003	7P CABLE HOLDER	51048-0700
CN3007	3P FFC CONNECTOR	52045-0345
CN3004	4P FFC CONNECTOR	52045-0445
CN3005	7P FFC CONNECTOR	52045-0745
CN3001	11P FFC CONNECTOR	52045-1145
CN3006	32P FFC CONNECTOR	52045-3245
V3000	FL TUBE	AAV7087
J3008	JUMPER WIRE 4P	D20PYY0415E
J3002	JUMPER WIRE 5P	D20PYY0510E
J3003	JUMPER WIRE 7P	D20PYY0715E
3001	FL HOLDER	VNF1085
X3000	CERAMIC RESONATOR (4.19MHz)	ASS7042

V VOLUME ASSY [AWX7971]

Mark No.	Description	Part No.
SWITCHES AND RELAYS		
S3402-S3404		ASG7013
S3401		ASX7037
CAPACITORS		
C3401, C3402		CKSRYB103K50
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
CN3401	5P JUMPER CONNECTOR	52147-0510

W MECHA SW ASSY [AWX7995]

Mark No.	Description	Part No.
SWITCHES AND RELAYS		
S2491		ASG1035
CAPACITORS		
C2491, C2492		CKSRYB103K50
OTHERS		
CN2491	3P JUMPER CONNECTOR	52147-0310

X MULTI JOG ASSY [AWX8015]

Mark No.	Description	Part No.
SWITCHES AND RELAYS		
S3452-S3455		ASG7013
S3451		ASX7038
CAPACITORS		
C3451, C3452		CKSRYB103K50
RESISTORS		
All Resistors		RS1/16S###J
OTHERS		
3452	3P CABLE HOLDER	51048-0300
CN3451	7P JUMPER CONNECTOR	52147-0710
J3452	JUMPER WIRE	D20PYY0310E

Mark	No.	Description	Part No.

Y HEADPHONE ASSY [AWX7980]

CAPACITORS

	C1951, C1952	CKSRYB392K50

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN1951 3P FFC CONNECTOR	52045-0345
	1951 PHONE JACK	AKN7029
	KN1951 EARTH METAL FITTING	VNF1084

Z POWER AMP-L ASSY [AWX7984]

SEMICONDUCTORS

⚠	IC4101, IC4201, IC4301	PA9009A
⚠	IC4102, IC4202, IC4302	PBD001A
⚠	IC4103, IC4203, IC4303, IC4453	PBD002A
	Q4102, Q4202, Q4302	2SA1255
	Q4101, Q4201, Q4301	2SC3326
	D4102, D4104-D4107, D4202	1SS355
	D4204-D4207, D4302, D4304-D4307	1SS355
	D4101, D4103, D4201, D4203, D4301	UDZS10B
	D4303	UDZS10B

CAPACITORS

	C4106, C4107, C4206, C4207	ACG7041
	C4306,C4307 (220u/100V)	ACG7041
	C4102, C4202, C4302	CCSRCH331J50
	C4112, C4113, C4212, C4213	CCSRCH6R0D50
	C4312, C4313	CCSRCH6R0D50
	C4114, C4214, C4314	CEANP1R0M50
	C4401, C4402	CEAT331M63
	C4110, C4111, C4210, C4211	CEHAT100M2A
	C4310, C4311	CEHAT100M2A
	C4101, C4201, C4301	CEHAT100M50
	C4103, C4203, C4303	CEHAT331M10
	C4104, C4105, C4204, C4205	CEHAT470M63
	C4304, C4305	CEHAT470M63
	C4108, C4109, C4208, C4209	CEHAZL470M25
	C4308, C4309	CEHAZL470M25

RESISTORS

⚠	R4131, R4132, R4231, R4232	ACN7107
⚠	R4331,R4332,R4482 (0.1ohm)	ACN7107
⚠	R4119,R4219,R4319 (0.22ohm/5W)	ACN7121
	R4112, R4212, R4312	RN1/10SE3302D
	Other Resistors	RS1/16S###J

OTHERS

	Y2 LEAD WITH HOUSING	ADX7398
	Y3 LEAD WITH HOUSING	ADX7399
	Y5 LEAD WITH HOUSING	ADX7404
	CN4401 17P SOCKET	AKP7072
	CN4403 3P L TYPE PLUG	KM250MA3
	CN4456 10P PLUG	KM250NA10L
	KN4401,KN4402 EARTH METAL FITTING	VNF1084

AA POWER AMP-R ASSY [AWX7985]

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC4151, IC4251, IC4351		PA9009A
⚠	IC4152, IC4252, IC4352, IC4452		PBD001A
⚠	IC4153, IC4253, IC4353		PBD002A
	Q4152, Q4252, Q4352		2SA1255
	Q4403, Q4404		2SC2412K
	Q4151, Q4251, Q4351		2SC3326
	D4152, D4154-D4157, D4252		1SS355
	D4254-D4257, D4352, D4354-D4357		1SS355
	D4151, D4153, D4251, D4253, D4351		UDZS10B
	D4353		UDZS10B

CAPACITORS

	C4156, C4157, C4256, C4257	ACG7041
	C4356,C4357 (220u/100V)	ACG7041
	C4152, C4252, C4352	CCSRCH331J50
	C4162, C4163, C4262, C4263	CCSRCH6R0D50
	C4362, C4363	CCSRCH6R0D50
	C4164, C4264, C4364	CEANP1R0M50
	C4405	CEAT331M10
	C4403, C4404	CEAT331M63
	C4160, C4161, C4260, C4261	CEHAT100M2A
	C4360, C4361	CEHAT100M2A
	C4151, C4251, C4351	CEHAT100M50
	C4153, C4253, C4353	CEHAT331M10
	C4154, C4155, C4254, C4255	CEHAT470M63
	C4354, C4355	CEHAT470M63
	C4158, C4159, C4258, C4259	CEHAZL470M25
	C4358, C4359	CEHAZL470M25

RESISTORS

⚠	R4181, R4182, R4281, R4282	ACN7107
⚠	R4381,R4382,R4481 (0.1ohm)	ACN7107
⚠	R4169,R4269,R4369 (0.22ohm/5W)	ACN7121
	R4162, R4262, R4362	RN1/10SE3302D
	Other Resistors	RS1/16S###J

OTHERS

	Y1 LEAD WITH HOUSING	ADX7397
	Y4 LEAD WITH HOUSING	ADX7400
	Y6 LEAD WITH HOUSING	ADX7404
	CN4402 19P SOCKET	AKP7073
	CN4454 10P PLUG	KM250NA10L
	KN4403,KN4404 EARTH METAL FITTING	VNF1084

AB POWER AMP-C ASSY [AWX7986]

SEMICONDUCTORS

⚠	IC4451	PA9009A
	Q4452	2SA1255
	Q4451	2SC3326
	D4452, D4454-D4457	1SS355
	D4451, D4453	UDZS10B

CAPACITORS

	C4456,C4457 (220u/100V)	ACG7041
	C4452	CCSRCH331J50
	C4462, C4463	CCSRCH6R0D50
	C4464	CEANP1R0M50
	C4460, C4461	CEHAT100M2A
	C4451	CEHAT100M50
	C4453	CEHAT331M10
	C4454, C4455	CEHAT470M63
	C4458, C4459	CEHAZL470M25

Mark	No.	Description	Part No.
		RESISTORS	
⚠	R4469	(0.22ohm/5W)	ACN7121
	R4462		RN1/10SE3302D
	Other Resistors		RS1/16S###J
		OTHERS	
	CN4453,CN4455	10P SOCKET	KP250NA10

AC REGULATOR ASSY [AWX8305]

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
⚠	IC2411	PROTECTOR(315mA)	AEK7003
⚠	IC2409		NJM78L05A
	IC2410		NJM78L05A
⚠	IC2404		NJM78M05FA
⚠	IC2403		NJM78M12FA
⚠	IC2401		NJM78M15FA
⚠	IC2405, IC2407		NJM78M56FA
⚠	IC2406		NJM79M05FA
⚠	IC2402		NJM79M15FA
⚠	Q2401		2SA1803
	Q2402		2SA1803
⚠	D2401-D2404, D2407-D2410		1SR154-400
⚠	D2418, D2419		1SR154-400
	D2411		1SS355
⚠	D2415		D3SBA20(B)
	D2405, D2406, D2413, D2414		RB501V-40
	D2420		UDZS10B
	D2421, D2422		UDZS15B
	D2423, D2424		UDZS6.2B
		CAPACITORS	
	C2401,C2402	(3300u/35V)	ACH7191
	C2433	(4700u/16V)	ACH7192
	C2446		CCSRCH101J50
	C2440		CEANP470M35
	C2415, C2416		CEAT101M16
	C2408		CEAT101M25
	C2405, C2406, C2410, C2429		CEAT221M35
	C2411, C2412		CEAT222M16
	C2435, C2438		CEAT2R2M50
	C2443		CEAT331M10
	C2442		CEAT470M50
	C2441		CEAT470M63
	C2436, C2439		CEAT471M16
	C2451, C2452		CKSRYB102K50
	C2403, C2404, C2407, C2409		CKSRYB103K50
	C2413, C2414, C2428, C2434, C2437		CKSRYB103K50
	C2453, C2499		CKSRYB103K50
	C2424		CKSRYB473K50
	C2444		CQMBA104J50
		RESISTORS	
	R2403		RD1/4MUF121J
	R2401, R2402		RD1/4MUF470J
	Other Resistors		RS1/16S###J
		OTHERS	
	2402	7P CABLE HOLDER	51048-0700
	CN2401	8P JUMPER CONNECTOR	52147-0810
	Y2401	BOARD IN JUMPER	ADX7420
	CN2411	7P PLUG	AKP7056
	CN2404,CN2406,CN2412,CN2414		AKP7057
		9P PLUG	
	CN2405	15P PLUG	AKP7060
	CN2407-CN2409	17P PLUG	AKP7061
	CN2413	19P PLUG	AKP7062
	CN2410	21P PLUG	AKP7063
	CN2415	3P SOCKET	KP250NA3
	KN2401-KN2403		VNF1084
		EARTH METAL FITTING	

AD SP/PS ASSY [AWX8308]

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	Q4602, Q4603		RN1903
	Q4601		RN4903
	D4601-D4610		1SS355
		COILS AND FILTERS	
	L4601-L4607	AF CHOKE COIL	ATH1053
	L4608,L4609	NOISE FILTER	RTF1167
		SWITCHES AND RELAYS	
	RY4601-RY4605		ASR7014
		CAPACITORS	
⚠	C4621,C4622	(22000u/63V)	ACH7190
	C4623		CEAT101M50
	C4601-C4614		CFTYA224J50
	C4625-C4631		CQMBA103J50
		RESISTORS	
⚠	R4621-R4627		RD1/2LMF4R7J
	R4628-R4632		RD1/2VM331J
	R4615, R4616		RD1/4MUF473J
⚠	R4613, R4614		RS1LMF471J
⚠	R4601-R4607		RS1LMF4R7J
⚠	R4611, R4612		RS2LMF331J
	Other Resistors		RS1/16S###J
		OTHERS	
	4601	6P CABLE HOLDER	51048-0600
	4602	8P CABLE HOLDER	51048-0800
	Y13	BOARD IN JUMPER	ADX7291
	CN4611	SP TERMINAL 8-P	AKE7099
	CN4612	SP TERMINAL 6-P	AKE7100
	J4602	JUMPER WIRE 8P	D20PYY0830E
	CN4610,CN4613	5P PLUG	KM200TA5

AE DIODE ASSY [AWX8017]

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
⚠	D2241, D2242		LN6SB60-4003

AF TRANS 2-1 ASSY [AWX8326]

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
⚠	IC2201,IC2202	PROTECTOR(3.15A)	AEK7016
	Q2202		RN4903
	Q2201		UN521L
⚠	D2201		S1WB(A)60SD
	D2202		UDZS16B
	D2207, D2208		UDZS22B

Mark	No.	Description	Part No.
	D2203-D2206, D2209-D2212		UDZS9.1B

CAPACITORS

⚠	C2202,C2203 (1u/100v)	ACH1237
	C2207,C2208 (470u/71V)	ACH7193
	C2209, C2210	CEAT101M63
	C2211, C2212	CEAT221M63

RESISTORS

⚠	R2205, R2206	RS1LMF332J
	Other Resistors	RS1/16S###J

OTHERS

	2201, 2202 6P CABLE HOLDER	51048-0600
	2203 6P CABLE HOLDER	51052-0600
	H2201-H2204 FUSE CLIP	AKR1004
	J2201 JUMPER WIRE 6P	D20PYY0615E
	J10 JUMPER WIRE	D25PYY0607E

AG VH TR ASSY [AWX8018]

SEMICONDUCTORS

⚠	Q2232	2SA1837D1
⚠	Q2231	2SC4793D1
⚠	D2231, D2232	1SR154-400

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN2231 6P L TYPE CONNECTOR	KPD6L

AH TRANS 2-2 ASSY [AWX7970]

SEMICONDUCTORS

⚠	IC2251, IC2252 PROTECTOR(3.15A)	AEK7016
⚠	IC2253 PROTECTOR(5A)	AEK7019

CAPACITORS

	C2251-C2253	CQMBA104J50

RESISTORS

⚠	R2251, R2252	RD1/4MUF100J

OTHERS

	2251 7P CABLE HOLDER	51048-0700

AI TRANS 1 ASSY

TRANS 1 Assy has no service parts.

AJ PRIMARY ASSY [AWX7998]

SEMICONDUCTORS

⚠	IC2001	NJM78M56FA
	Q2001	KRC101M
	D2002, D2004, D2005	1SS355
⚠	D2001	S1WB(A)60SD
	D2003	UDZS5.1B

COILS AND FILTERS

⚠	L2001 LINE FILTER	ATF7018
	L2002,L2003 FERRITE BEAD	VTH1013

TRANSFORMERS

Mark	No.	Description	Part No.
⚠	T2001		ATT7040

SWITCHES AND RELAYS

⚠	RY2001	ASR7025

CAPACITORS

⚠	C2001,C2002 (0.01uF/275V)	ACE7013
⚠	C2003 (10000pF/250V)	ACG7033
	C2008	CEAT102M25
	C2009	CEAT221M25
	C2005-C2007, C2011, C2012	CKSRYB103K50
	C2004	CQMA103J50

RESISTORS

	R2002	RD1/2VM101J
	Other Resistors	RS1/16S###J

OTHERS

	CN2002 11P FFC CONNECTOR	52045-1145
⚠	CN2005 AC SOCKET 1-P	AKP1034
	H2001,H2002 FUSE CLIP	AKR7001
	CN2003,CN2004 5P SOCKET	KP200TA5L
⚠	CN2001 AC CORD SOCKET	RKP1751
	KN2001 EARTH METAL FITTING	VNF1084

AK FM/AM TUNER MODULE [AXQ7232]

SEMICONDUCTORS

IC201	BA1451F
IC202	LC72131MD
Q201, Q204, Q205, Q601	2SC2412K
Q202	DTA124ES
Q203, Q602	DTC124EK
D201	1SS133
D601	HVU187
D202	MTZJ5.1C
D101	UDZS6.8B

COILS AND FILTERS

	L201 FM DETECTOR COIL	ATE7003
	F202 FM CERAMIC FILTER	ATF-107
	F201 FM CERAMIC FILTER	ATF-119
	F601 ANTIBIRDY FILTER	ATF7025
	F203 AM CERAMIC FILTER	ATF7026
	L602	LAU2R2J
	L601	LCTA270J2520

CAPACITORS

C605	CCSQCH680J50
C212, C213, C226, C233–C235	CCSRCH101J50
C240, C614	CCSRCH101J50
C206	CCSRCH120J50
C231, C232	CCSRCH150J50
C223	CEAT100M50
C229	CEAT101M10
C224	CEAT1R0M50
C227	CEAT220M25
C241	CEAT2R2M50
C243	CEAT330M16
C228	CEAT3R3M50
C237	CEAT470M10
C211	CEJQ1R0M50
C210	CEJQ470M16

Mark No.	Description	Part No.
C103, C104, C204, C238, C609		CKSRYB102K50
C102, C208, C216, C217, C220		CKSRYB103K50
C239, C242, C604, C610, C615		CKSRYB103K50
C225		CKSRYB153K50
C607, C608		CKSRYB182K50
C201, C205, C214, C230, C236		CKSRYB223K50
C244, C611		CKSRYB223K50
C221		CKSRYB224K10
C603		CKSRYB392K50
C215		CKSRYB471K50
C202, C222		CKSRYB473K16
C606		CKSRYB561K50

RESISTORS

R211	RD1/4PU221J
R221	RD1/4PU222J
R233	RD1/4PU391J
R103, R104	RS1/10S221J
Other Resistors	RS1/16S###J

OTHERS

CN201	13P FFC CONNECTOR	52044-1345
BN201	2P TERMINAL WITH PAL	AKA7002
	SHIELD CASE T	ANK7072
	SHIELD CASE B	ANK7073
X201	CRYSTAL RESONATOR (7.2MHz)	ASS1093
	FM FRONT END	AXF7005
	AM RF TUNING BLOCK	AXX7072

6. ADJUSTMENT

■ AM Tuner Section

• There is no adjustment in the AM tuner.

■ FM Tuner Section

• Set the mode selector to FM BAND.
• Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	ANT. Input level and signal condition			Adjustment	
		Frequency (MHz)	Modulation	Input Level (dBμV)	Adjust point	Contents
1	T-METER Adjustment	98	OFF	80	L201	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point Vtm) gets within 0 ± 50mV.

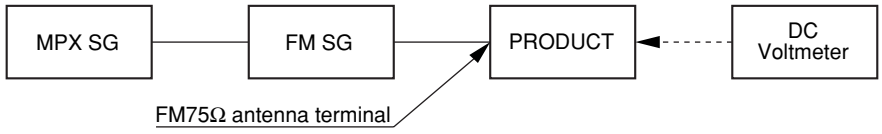


Fig.1 Adjustment Wiring Diagram

AK FM/AM TUNER MODULE

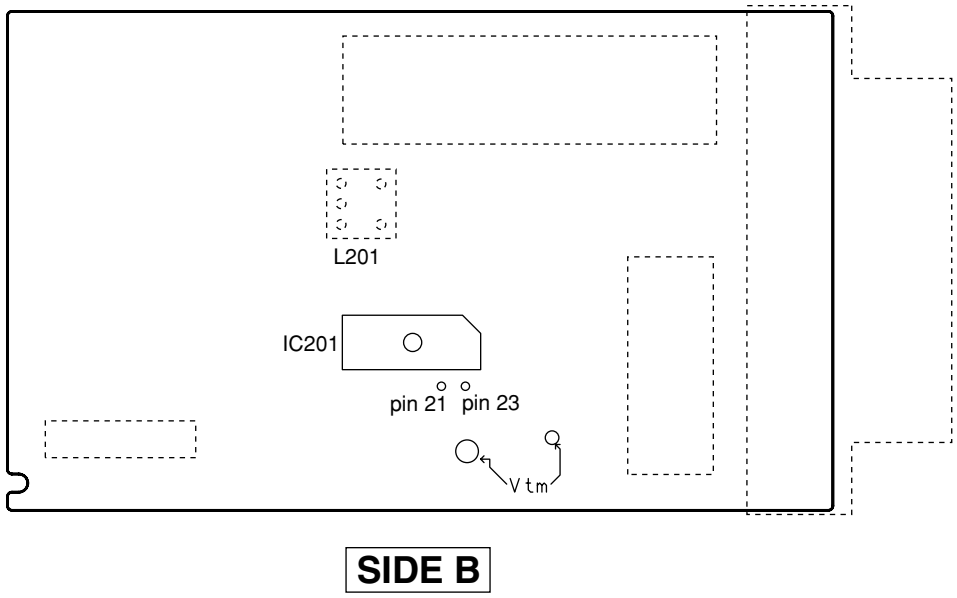


Fig.2 Adjustment Point

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 PROTECTION CIRCUIT CONTROL SPECIFICATION

Microcomputer-related ports

FAN_DRIVE (Expansion IC) : For Fan on/off
TEMP_IN (pin 94)
Input port (A/D) : To detect temperature
FAN_STOP (pin 95)
Input port : To detect Fan forced stop
OL_DET (pin 73)
Input port : To detect overloading at the amplifier (Interrupt port)
DC_DET (pin 63)
Input port : For DC detection

The following control processes are activated immediately before the relay system is turned on upon power-on. The time is 4.8 seconds after power-on. (Control of the relay system is enabled 5.2 seconds after power-on.)
Only DC detection is enabled 2 seconds after power-on to activate it before other protection functions.

① Fan control

1) Fan control

TEMPIN	Temperature (°C)	Fan	Remarks
More than 219	More than 125	ON	Mute ON & speaker relay OFF : The warning indication "OVERHEAT"
204 to 218	110 to 125	ON	Leading hold
156 to 203	80 to 110	ON	Mute OFF & speaker relay ON : Normal mode
134 to 155	70 to 80	Leading hold	
Less than 133	Less than 70	OFF	

2) Fan detection

If the fan is forcibly stopped, the FAN_DET port becomes "L".
Detecting "L" the microcomputer performs the following operations:
1. System muting on
2. Protection relays off

The warning indication "FAN STOP" appears (flashing) on the FL display.
If this status continues for more than 3 seconds, the power is turned off (for Standby mode).
If the port becomes "H" within 3 seconds, the unit resets automatically.
FAN_DET port performs the chattering check for 1 msec.
In addition, there is the case that detection delays for maximum 20 msec because performs monitor of FAN_DET port with a main loop.

3) Thermistor open detection

If a total (total of 50 times) of A/D value (TEMPIN) for one second is less than 250, the indication "THDCT NG" flashes.
If this status continues for 3 seconds, the power becomes the standby mode.

② Overload detection (abnormality detection)

If the speaker terminals are short-circuited or low-load driving is detected, the OL_DET port becomes "L".
Detecting "L" edge interrupt in an interrupt process, the microcomputer performs the following operations:
1. System muting on
2. Speaker relay off (Control with the display microcomputer)
3. Power off (Standby mode)

③ DC detection (defect detection)

Only DC detection is enabled 2 seconds after power-on.
If there is a fault in the power amplifier or a high-level signal lower than 5 Hz is input, the DC_DET port becomes "L".
Detecting "L" the microcomputer performs the following operations:
1. System muting on
2. Speaker relay off (Control with the display microcomputer)

The warning indication "AMP ERR" appears on the FL display.

If this status continues for more than 3 seconds, the power is turned off (for Standby mode) and flashes the standby LED.
Do not accept the key input afterward.
(Flash it always till turns the primary side off.)
If the port becomes "L" within 3 seconds, the unit resets automatically.

DC_DET port performs the chattering check for 1 msec.
In addition, there is the case that detection delays for maximum 20 msec because performs monitor of DC_DET port with a main loop.
Even if turns the primary side off and turns on once again, standby LED flashes as it is.
If detects DC once and turned the power off, do not accept the key input afterward.
However, power on is possible when the following key was pressed to be able to key input in the protection line and service.
1. Test mode (remote control code : A55F)
2. When the STEREO/DIRECT key and SIGNAL SELECT key are both held pressed for 2 seconds.
(It is effective only when turned the power off with DC detection regarding step 2.)

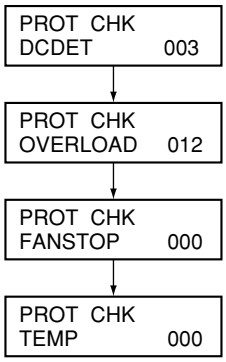
④ Diagnostic mode

This mode is only for servicing and checking the circuit design, and not open to users.
When the STEREO/DIRECT key and TONE + key are both held pressed for 2 seconds in Standby mode, the power is turned on, and the number of times of each defect or Speaker relay off by abnormality detection is sequentially displayed on the FL display.

Displayed items:

- DC detection
- Overload detection
- Fan detection
- Temperature detection

Hold the STEREO/DIRECT key and TONE + key pressed for 2 seconds in Standby mode.



Display changes automatically every 3 seconds.

When the MULTI CH IN key and TONE – key are both held pressed for 2 seconds in standby mode, all clear the counter for detection.

● Protection Process List

Item	Purpose	Detection Method	Process	Warning Indication	Remarks
DC detection	To detect amplifier damage (defect status) A process to protect speakers (for protection of connected external devices)	Detects when the DC_DET port becomes "L".	Turns muting on and speaker relay off, then turns off the power after 3 seconds.	Flashing "AMP ERR" for 3 seconds. Flash the standby LED after the power off.	Once detected and turned the power off, input a key never again.
AMP overload	To detect overloading (abnormal status) With low-load driving or a short circuit of the speaker terminals (for protection of the amplifier)	Detects when the AMP_OL port becomes "L" (checks by interrupt).	Turns muting on and speaker relay off, and immediately turns off the power.	None	
Fan control	Protection function against a temperature rise at the heat sink	Detect temperature more than 100°C.	Turns muting on and speaker relay off. Rotate the fan	Continue flasing with "OVERHEAT"	
		Detect temperature of 90 to 100°C.	Rotate the fan		Mute, relay and warning indications is leading hold.
		Detect temperature of 74 to 90°C.	Rotate the fan		Mute off & relay on (normal mode)
		Detect temperature of 69 to 74°C.	Fan is leading hold		
		A condition except the above.	Stop the fan		
Fan stop	To know that the rotating fan is forcibly stopped	Detects when the FAN_DET port becomes "L".	Turns muting on and speaker relay off, then turns off the power after 3 seconds.	Flashing "FAN STOP" for 3 seconds	If the FAN_DET port becomes "H" within 3 seconds, the unit resets automatically. After the power off, the key input is possible once again.

7.1.2 DIAGNOSTICS OF AMPLIFIER SECTION

When DC detection worked (STBY IND. flashes for a long time) in the protection circuit of foregoing section (or there is not the speaker output, probably only 1CH), failure (damage) of the power amplifier section is considered.

Because this receiver cannot diagnose the amplifier section by an electricity state by structure, please diagnose it in the following steps.

Caution:
When release the STBY (flashes) state before repair, Because there is the case that the damage progresses when turns the power on once again, please be careful.

- According to a symptom, perform the following confirmation beforehand.

1. Are not Fuse and IC protector opening it?

2-a. When can turn on electricity, confirm that supply voltage of the point that can measure is appropriate.

2-b. Furthermore, confirm that voltage ((in a no signal) DC and the appropriate signal output) between GND and R4621-4627 (Either of the amplifier side and the speaker terminal side is possible) (Or remove either of CN4601-4604). And limit failure CH.

If was able to limit failure CH, diagnose the CH in the following steps.

• Use the tester basically and check that each part is not damaged (resistance value / open / short circuit).

About parts with damaged possibility, explain FL ch to an example in order.

1. R4131, 4132 (ACN7107: 0.1 Ω, 1W chip drain resistor)
   IC 4102, 4103
   (PBD001A: Nch, PBD002A: Pch output POWER MOS Tr.)

2. R4119 (ACN7111: 0.22 Ω .5W ×2 cement source resistor)
   R4117, 4118
   (RS1/16S471J: 470 Ω chip resistor for protection circuit)
   D4101, 4103
   (UDZS10B: 10V Zener diode for current limiting)
   D4102, 4104 (1SS355: Small signal diodes same as above)
   R4110, 4111 (RS1/16S560J: 56 Ω chip gate resistor)
   R4106, 4107
   (RS1/16S101J:100 Ω chip IC4101 power filter resistor)

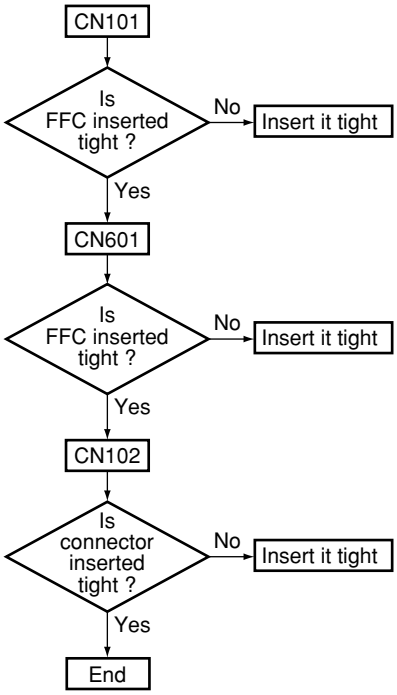
3. IC4101 (PA9009A: Power amplifier with output current bias Voltage step HIC)
   IC4701, 4702
   (AEK7023: 200mA IC protector /FAN CONNECTION Assy)

4. Q2231, 2232 (2SC4793,2SA1837 TO-220 Tr. /VH TR Assy)

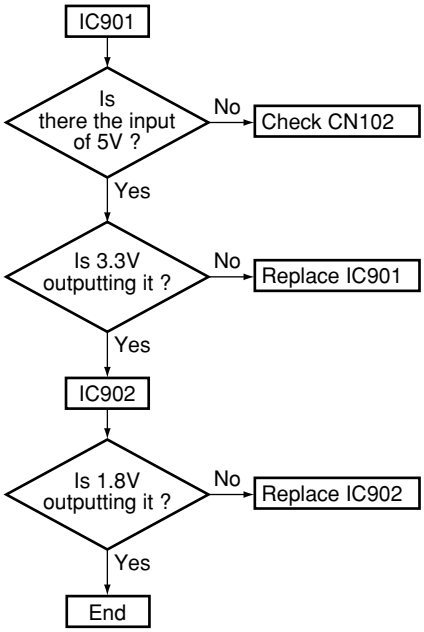
7.1.3 TROUBLE SHOOTING

- When a sound is not out in the surround mode with the digital signal input.
- Suppose CR to be poor contact and that is not damaged.
- This shows failure analysis of DSP Assy.

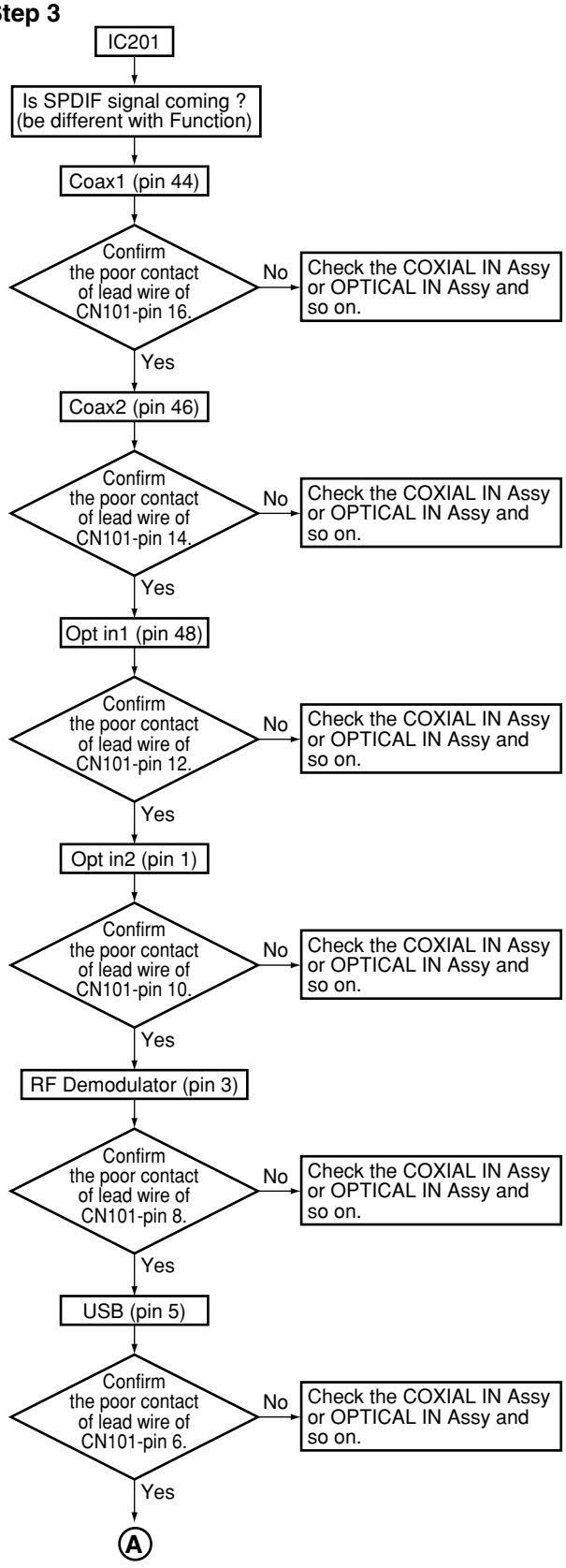
Step 1

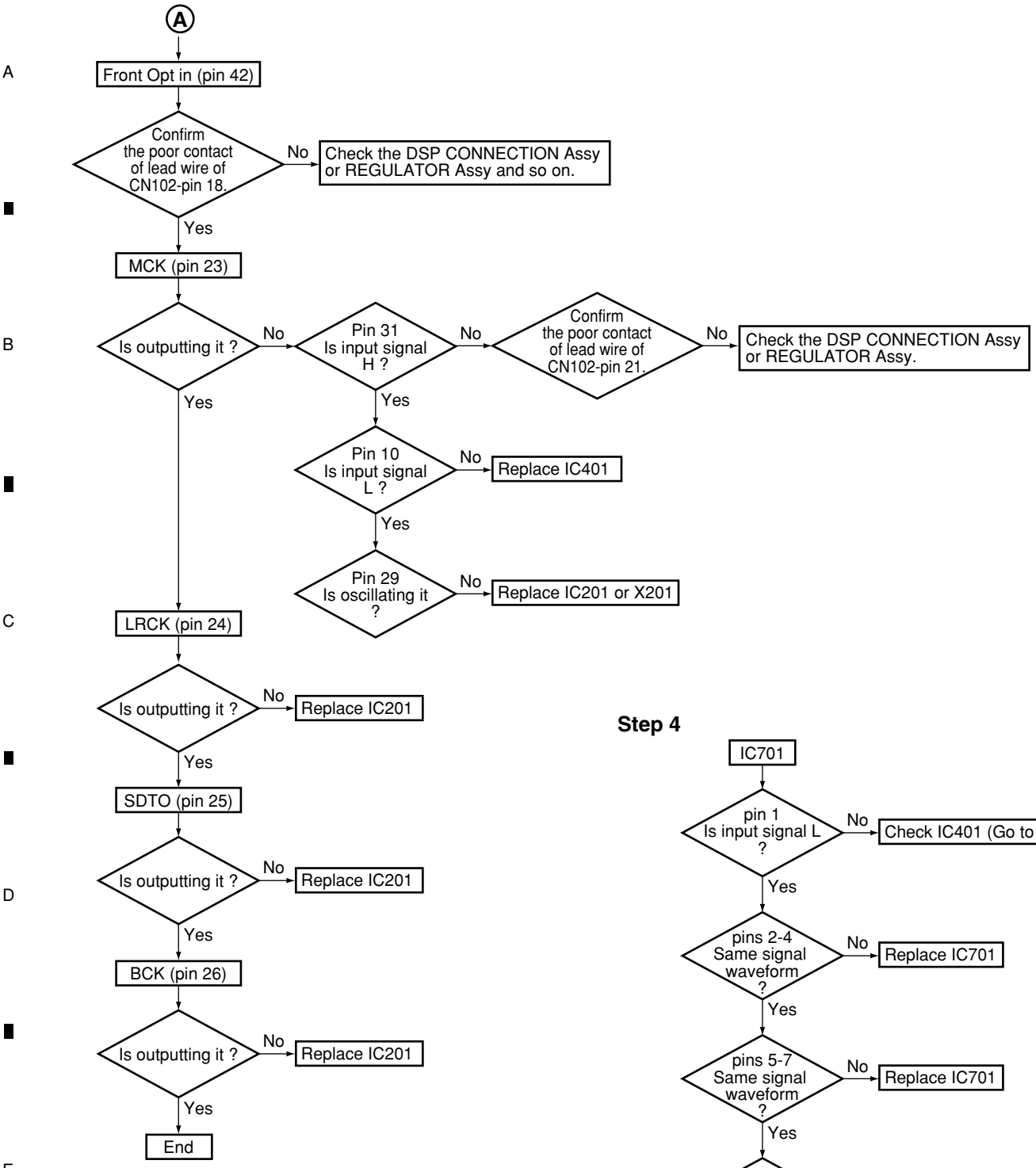


Step 2

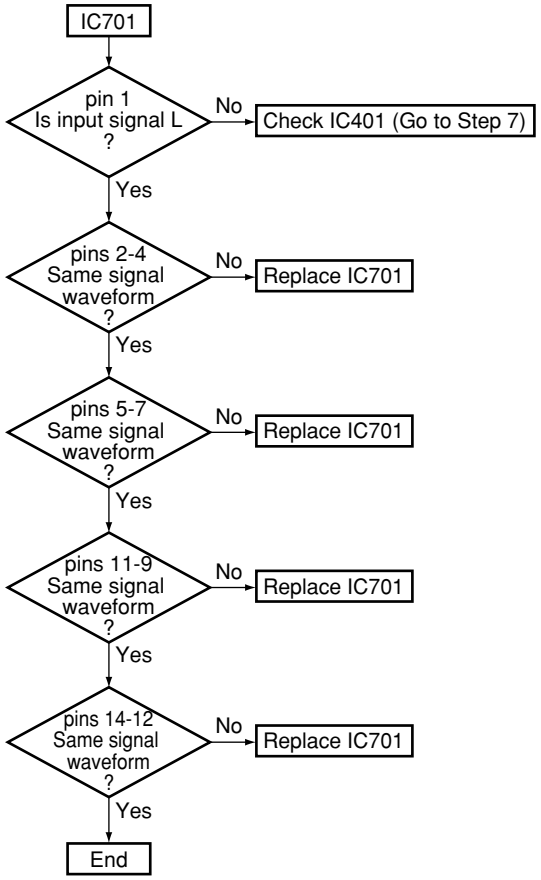


Step 3

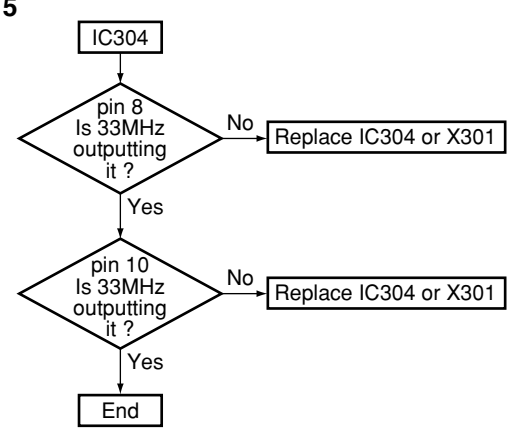

IC201
Is SPDIF signal coming ? (be different with Function)
Coax1 (pin 44)
Confirm the poor contact of lead wire of CN101-pin 16.
No
Check the COXIAL IN Assy or OPTICAL IN Assy and so on.
Yes
Coax2 (pin 46)
Confirm the poor contact of lead wire of CN101-pin 14.
No
Check the COXIAL IN Assy or OPTICAL IN Assy and so on.
Yes
Opt in1 (pin 48)
Confirm the poor contact of lead wire of CN101-pin 12.
No
Check the COXIAL IN Assy or OPTICAL IN Assy and so on.
Yes
Opt in2 (pin 1)
Confirm the poor contact of lead wire of CN101-pin 10.
No
Check the COXIAL IN Assy or OPTICAL IN Assy and so on.
Yes
RF Demodulator (pin 3)
Confirm the poor contact of lead wire of CN101-pin 8.
No
Check the COXIAL IN Assy or OPTICAL IN Assy and so on.
Yes
USB (pin 5)
Confirm the poor contact of lead wire of CN101-pin 6.
No
Check the COXIAL IN Assy or OPTICAL IN Assy and so on.
Yes
A


A
Front Opt in (pin 42)
Confirm the poor contact of lead wire of CN102-pin 18.
No
Check the DSP CONNECTION Assy or REGULATOR Assy and so on.
Yes
MCK (pin 23)
Is outputting it ?
No
Pin 31 Is input signal H ?
No
Confirm the poor contact of lead wire of CN102-pin 21.
No
Check the DSP CONNECTION Assy or REGULATOR Assy.
Yes
Yes
Pin 10 Is input signal L ?
No
Replace IC401
Yes
Pin 29 Is oscillating it ?
No
Replace IC201 or X201
LRCK (pin 24)
Is outputting it ?
No
Replace IC201
Yes
SDTO (pin 25)
Is outputting it ?
No
Replace IC201
Yes
BCK (pin 26)
Is outputting it ?
No
Replace IC201
Yes
End

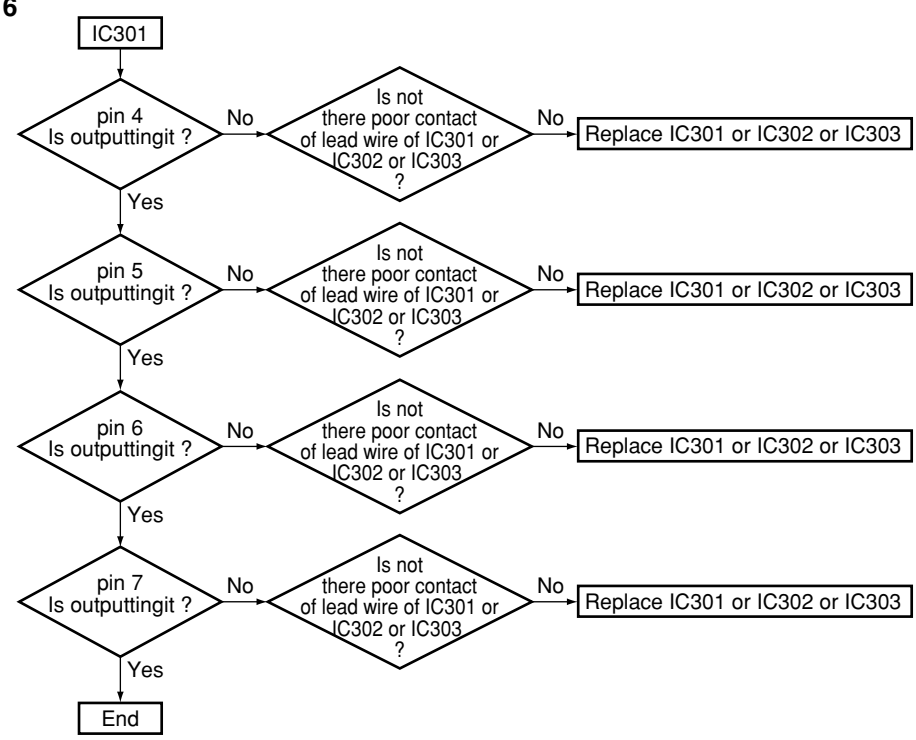
Step 4


IC701
pin 1 Is input signal L ?
No
Check IC401 (Go to Step 7)
Yes
pins 2-4 Same signal waveform ?
No
Replace IC701
Yes
pins 5-7 Same signal waveform ?
No
Replace IC701
Yes
pins 11-9 Same signal waveform ?
No
Replace IC701
Yes
pins 14-12 Same signal waveform ?
No
Replace IC701
Yes
End

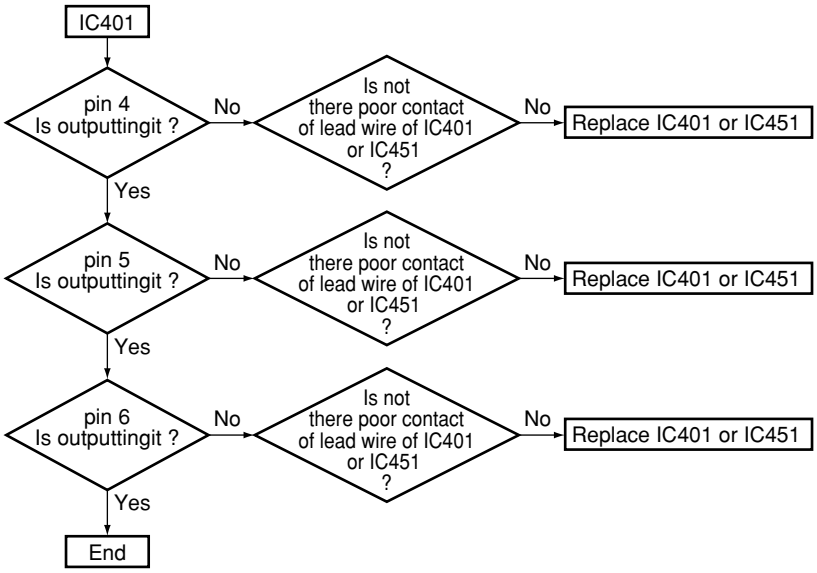
Step 5



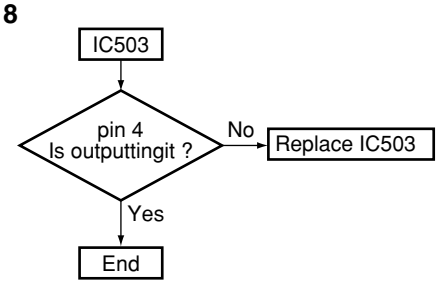
Step 6


IC301
pin 4 Is outputtingit ?
No
Is not there poor contact of lead wire of IC301 or IC302 or IC303 ?
No
Replace IC301 or IC302 or IC303
Yes
pin 5 Is outputtingit ?
No
Is not there poor contact of lead wire of IC301 or IC302 or IC303 ?
No
Replace IC301 or IC302 or IC303
Yes
pin 6 Is outputtingit ?
No
Is not there poor contact of lead wire of IC301 or IC302 or IC303 ?
No
Replace IC301 or IC302 or IC303
Yes
pin 7 Is outputtingit ?
No
Is not there poor contact of lead wire of IC301 or IC302 or IC303 ?
No
Replace IC301 or IC302 or IC303
Yes
End

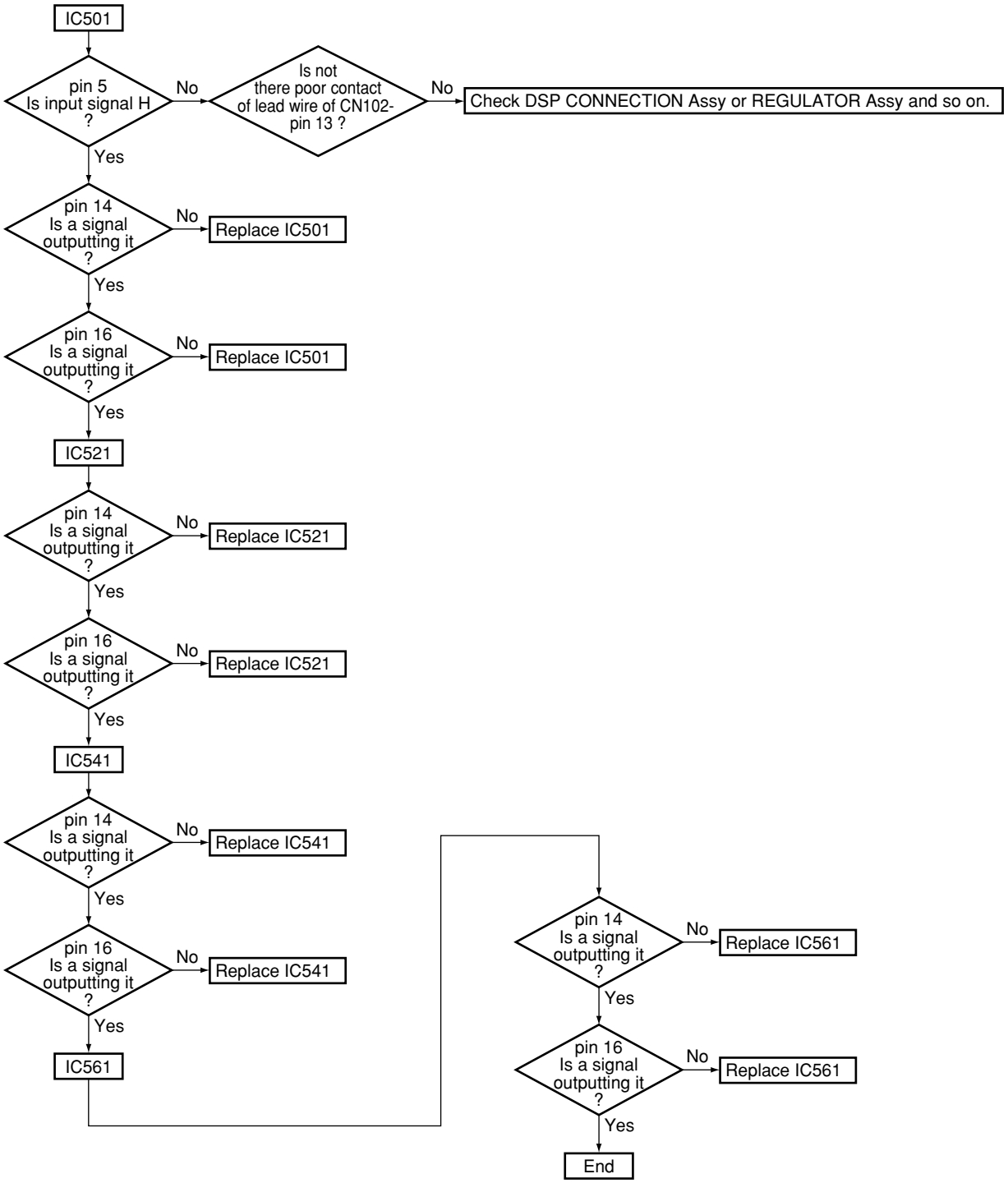
Step 7



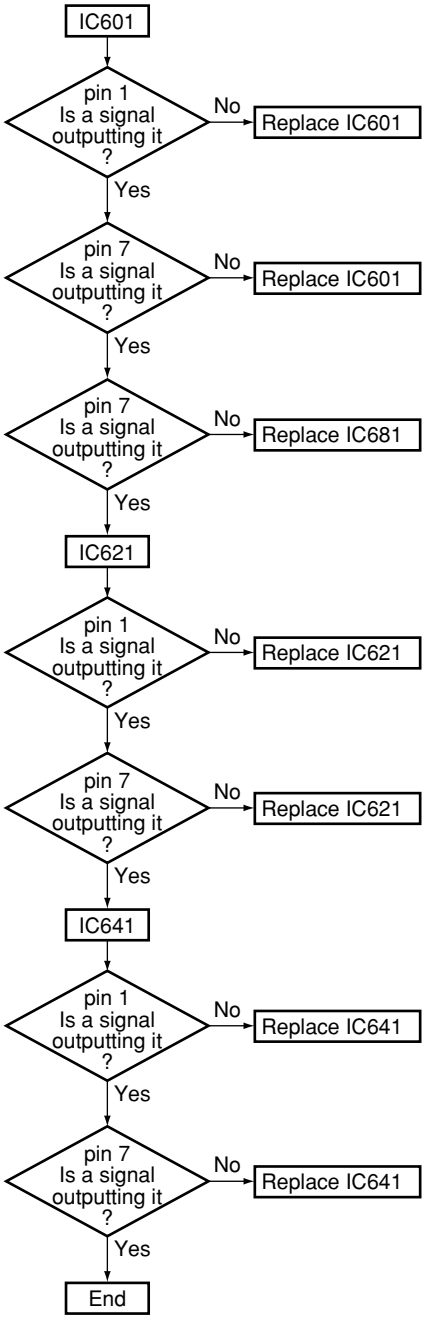
Step 8


IC503
pin 4
Is outputtingit ?
No
Replace IC503
Yes
End

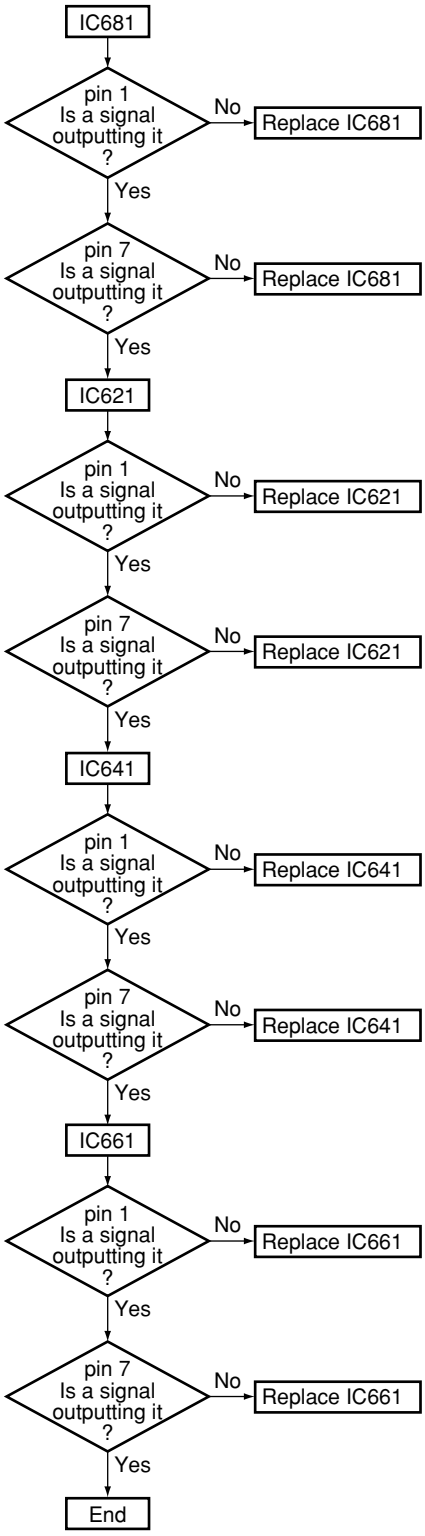
Step 9


IC501
pin 5
Is input signal H
?
No
Is not
there poor contact
of lead wire of CN102-
pin 13 ?
No
Check DSP CONNECTION Assy or REGULATOR Assy and so on.
Yes
pin 14
Is a signal
outputting it
?
No
Replace IC501
Yes
pin 16
Is a signal
outputting it
?
No
Replace IC501
Yes
IC521
pin 14
Is a signal
outputting it
?
No
Replace IC521
Yes
pin 16
Is a signal
outputting it
?
No
Replace IC521
Yes
IC541
pin 14
Is a signal
outputting it
?
No
Replace IC541
Yes
pin 16
Is a signal
outputting it
?
No
Replace IC541
Yes
IC561
pin 14
Is a signal
outputting it
?
No
Replace IC561
Yes
pin 16
Is a signal
outputting it
?
No
Replace IC561
Yes
End

Step 10



Step 11

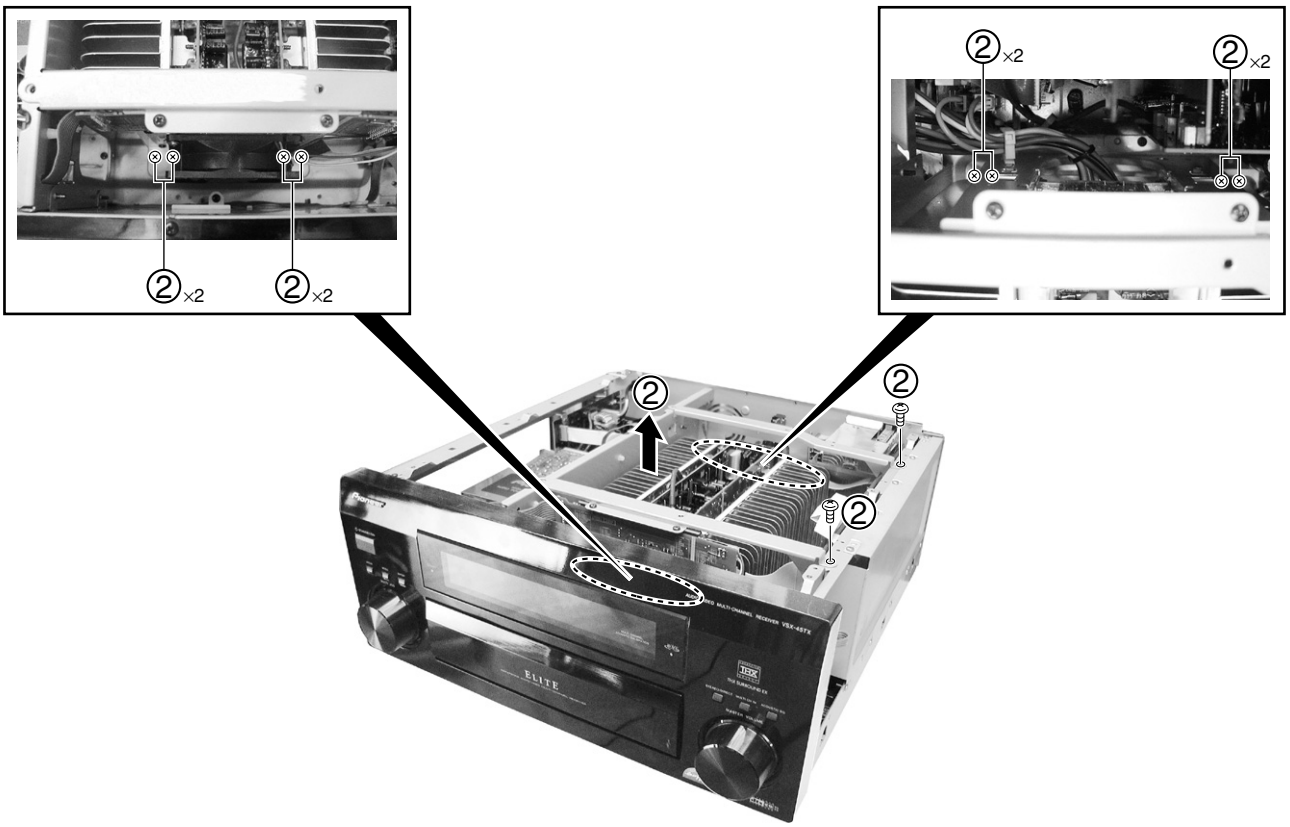


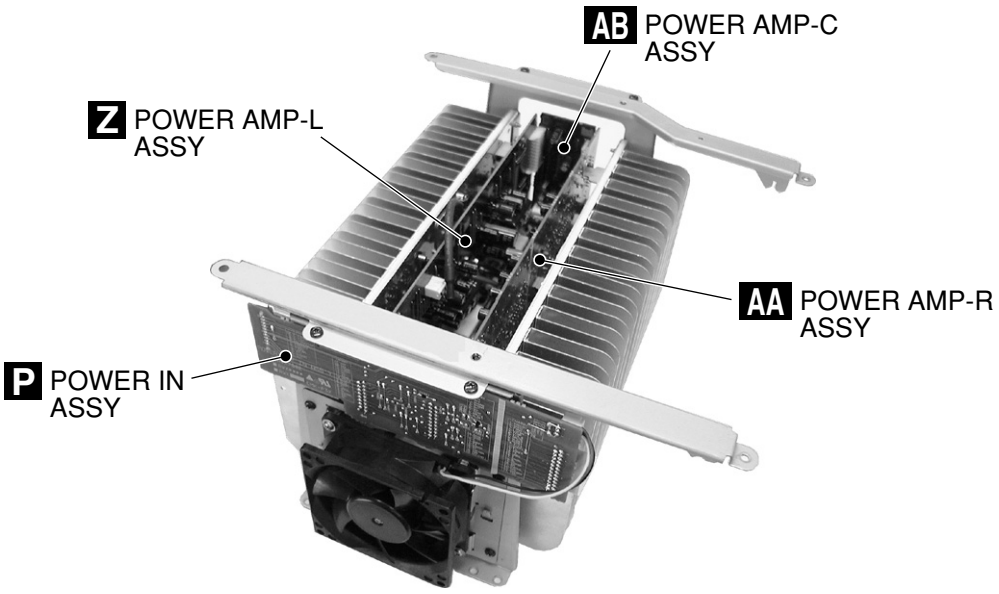
7.1.4 DISASSEMBLY

1 Bonnet and Heat Sink Block

① Remove the bonnet case (screws × 23)

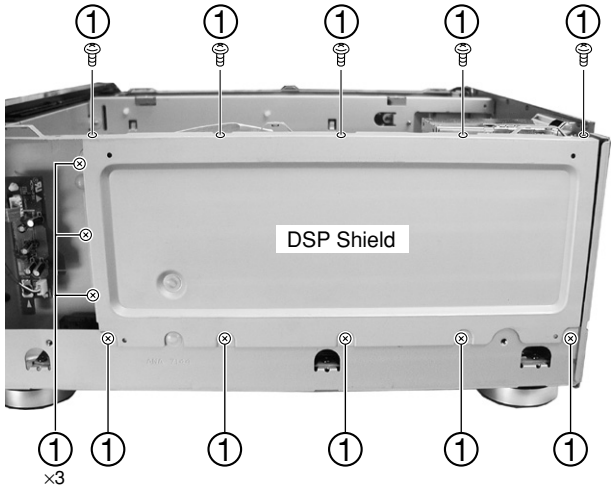
② Remove the heat sink block (screws × 10, connectors × 8)



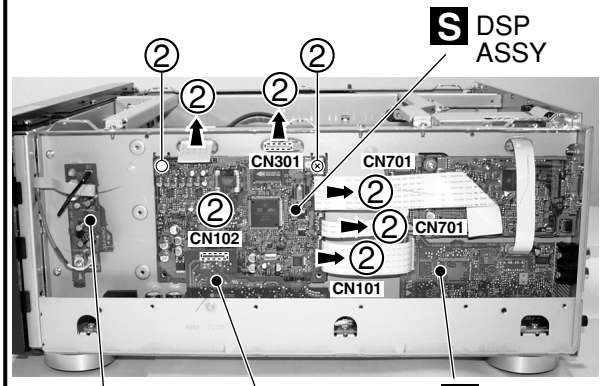


2 DSP Block

① Remove the DSP shield (screws × 13)

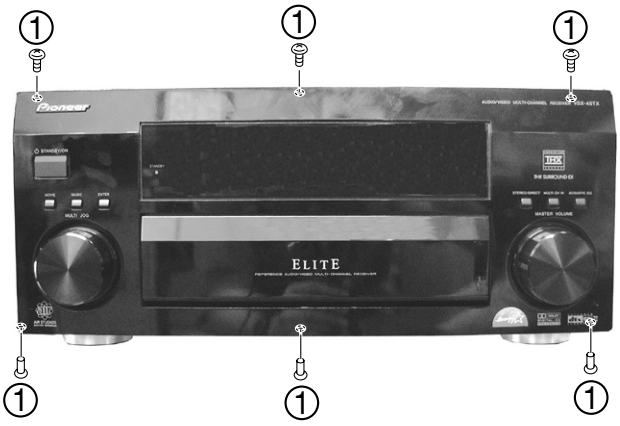


② Remove the DSP ASSY
(screws × 1, Nylon Rivet × 1, connectors × 6)



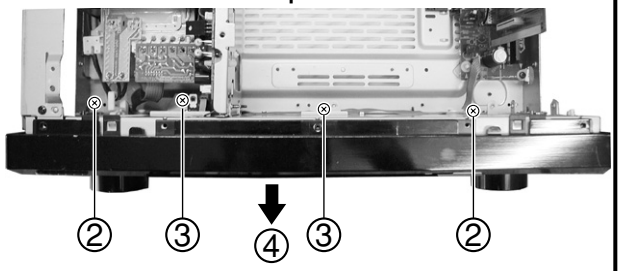
3 Front Panel Block

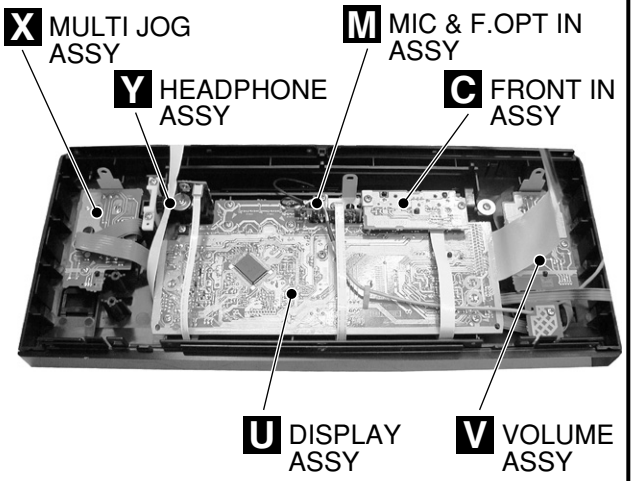
① Remove six screws



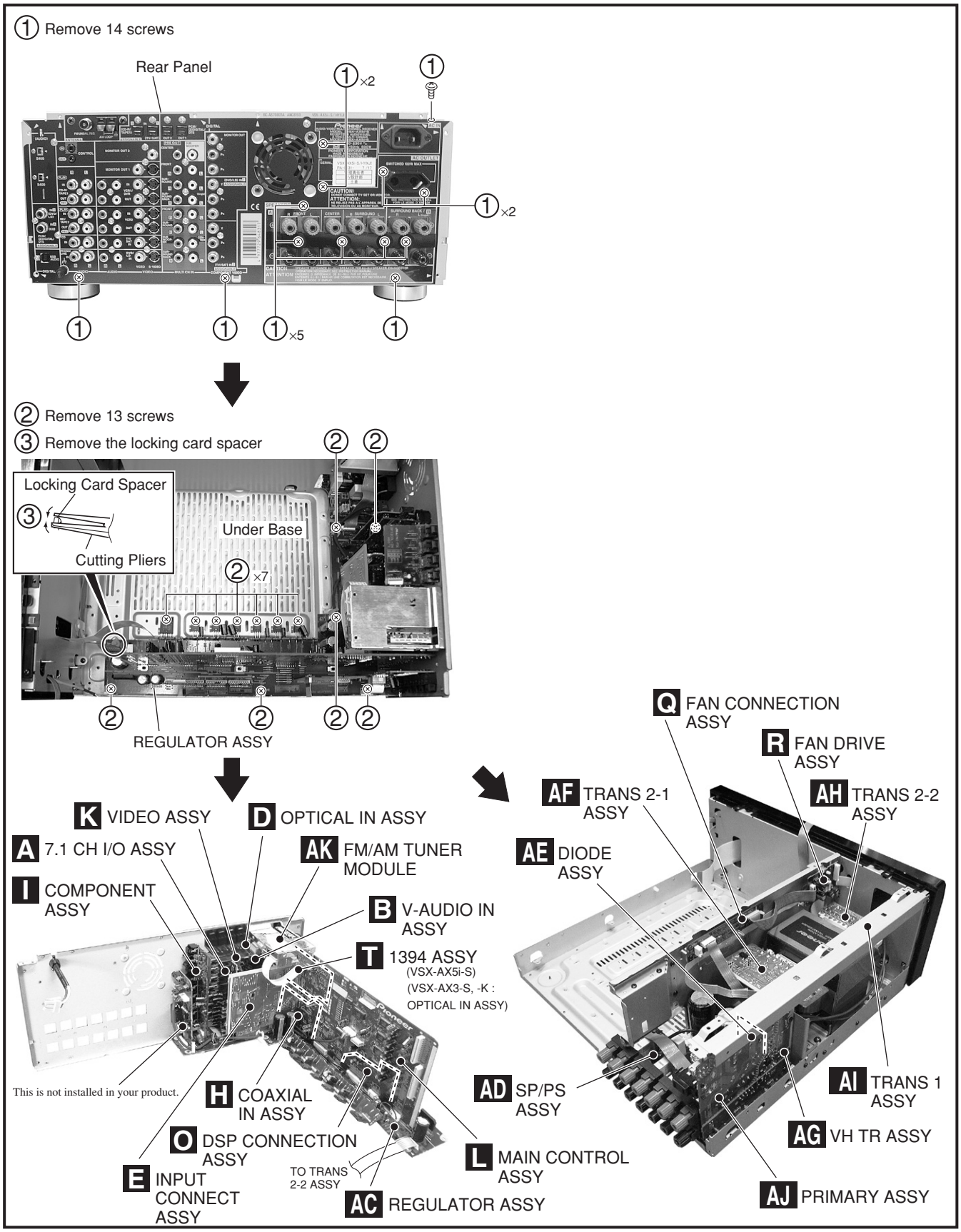
② Remove two screws
③ Remove two screws
④ Remove the front panel block

● Top View





4 Rear Panel Block



7.2 PARTS

7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

● **List of IC**

PD8112A, PD5948A8, PD5899A, PD5771B, BU4094BCF

■ PD8112A (1394 ASSY: IC301)

• Flow Control IC

● **Pin Function**

No.	Pin Name	I/O	Pin Function
1	VDDOUT	–	Digital VDD (3.3V)
2	SPDIFOUT	O	IEC60958 output
3	SDATA3O	O	MBLA data output (5 ch, 6 ch) (at flow: I2S)
4	SDATA2O	O	MBLA data output (3 ch, 4 ch) (at flow: I2S)
5	SDATA1O	O	MBLA data output (1 ch, 2 ch) (at flow: I2S)
6	SDATA0O	O	MBLA ancillary data output (at flow: I2S)
7	LRCKOUT	O	MBLA LRCK output
8	BCKOUT	O	MBLA BCK output (64fs)
9	AMCLKOUT	O	Master clock output (When AMCLKEN output is LOW, active Hi-Z.)
10	AMCLKEN	O	When 60958 is selected or OUTPUTEN=L output, active LOW. For external clock control
11	SDERRO	O	Data error flag output
12	VSSOUT	–	Digital GND
13	VDDOUT	–	Digital VDD (3.3V)
14	SDMUTEO	O	Data mute flag output MUTE: H
15	SAPCMBCKIN	I	BCK input when converting SACD to MLPCM
16	SAPCMLRCKIN	I	LRCK input when converting SACD to MLPCM
17	SAPCMD3IN	I	DATA3 input when converting SACD to MLPCM
18	SAPCMD2IN	I	DATA2 input when converting SACD to MLPCM
19	SAPCMD1IN	I	DATA1 input when converting SACD to MLPCM
20	SACDMKO	O	SACD master clock output (2.8224MHz)
21	SACDDAO	O	SACD ancillary data output
22	SACDD0O	O	SACD data output (L)
23	SACDD1O	O	SACD data output (R)
24	SACDD2O	O	SACD data output (C)
25	SACDD3O	O	SACD data output (Lfe)
26	VSSCORE	–	Digital GND (for inside)
27	VDDCORE	–	Digital VDD (3.3V, for inside)
28	SACDD4O	O	SACD data output (Ls)
29	SACDD5O	O	SACD data output (Rs)
30	SACDFRO	O	SACD frame data output (75Hz)
31	TESTMODE0	I	LSI test mode input Normally, "L" fixed
32	TESTMODE1	I	LSI test mode input Normally, "L" fixed
33	PLLMODE	I	VCOCLK division ratio selection Normally, "L"
34	SAPCMMODE	I	0: normal, 1: When the data type is SACD, output SAPCM*** input to MLPCM.
35	XVALMODE	I	0: 64M•128M bit SDRAM, 1: 256M bit SDRAM
36	RJMSBF	I	MLPCM output format setting at flow 0: I2S, 1: Right aligned MSB first
37	SEL512	I	Master clock selection at flow 0: 768fs, 1: 512fs
38	CONT48	O	Output for controlling the oscillator (When FMODE="1" and SEL44K="1", active High)
39	CLK48K	I	Master clock input of fs48kHz (36.864MHz or 24.576MHz)
40	CLK48KI	I	Crystal resonator input of fs48kHz (24.576MHz)
41	CLK48KO	O	Crystal resonator output of fs48kHz (24.576MHz)
42	VSSOUT	–	Digital GND
43	VDDOUT	–	Digital VDD (3.3V)
44	CONT44	O	Output for controlling the oscillator (When FMODE="1" and SEL44K="0", active High)
45	CLK44K	I	Master clock input of fs44.1kHz (33.8688MHz or 22.5792MHz)
46	CLK44KI	I	Crystal resonator input of fs44.1kHz (22.5792MHz)
47	CLK44KO	O	Crystal resonator output of fs44.1kHz (22.5792MHz)
48	SELOSC	I	L: CLK4XK input selection, H: crystal resonator I/O selection As for the crystal resonator, less than 30MHz are insured.

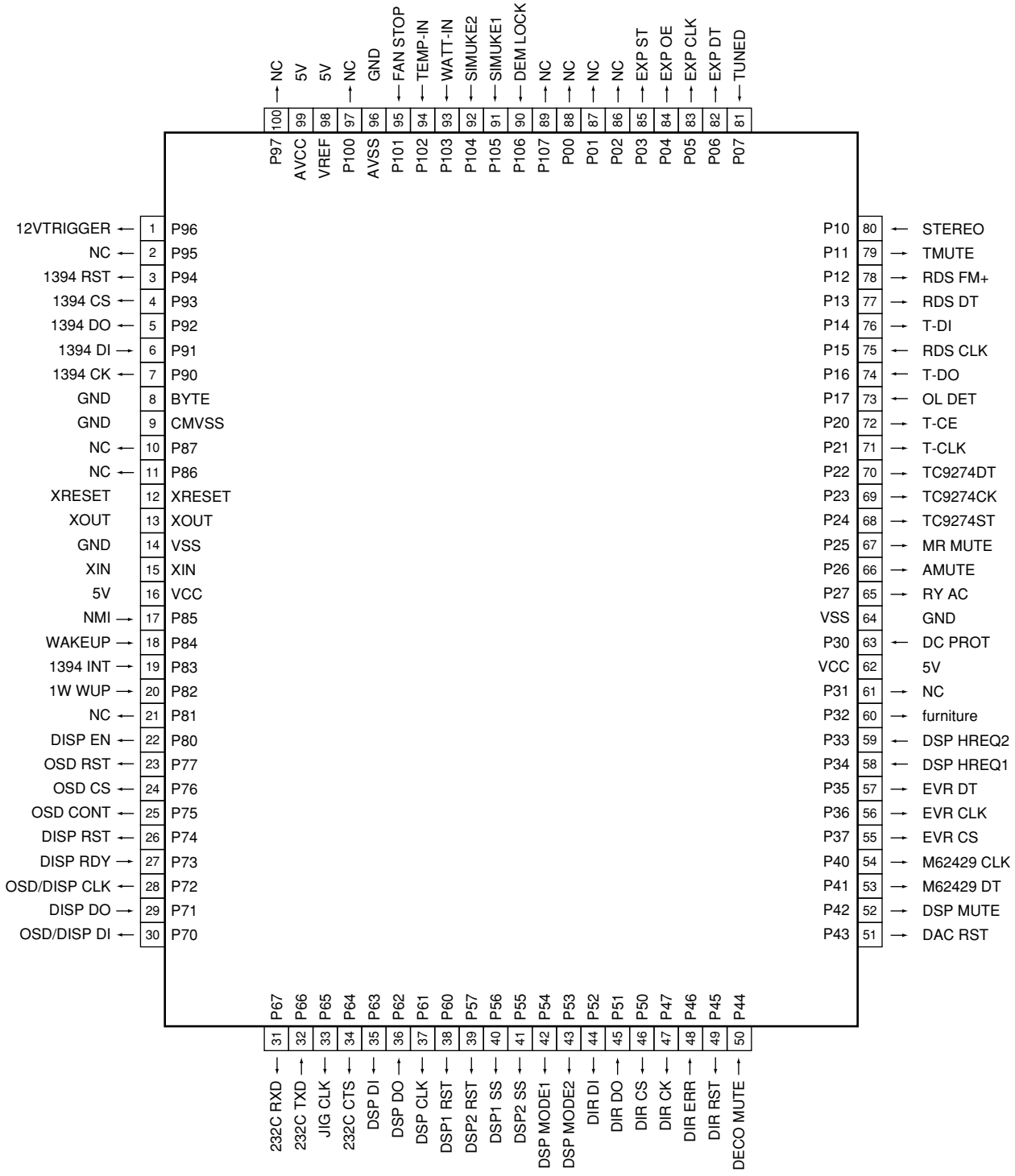
No.	Pin Name	I/O	Function
49	XRESET	I	Logic reset input Reset for L
50	OUTPUTEN	I	Pin for controlling the audio system output H: output, L: Hi-Z
51	FMODE	I	Flow mode control input at flow: H, at through: L
52	SELDTYPE0	I	Data type input 0 00: IEC60958, 01: MBLA
53	SELDTYPE1	I	Data type input 1 1X: SACD
54	SEL44K	I	Selecting signal of master clock input at flow L: CLK48K, H: CLK44K
55	FSSEL0	I	fs setting input 0 00: 44.1/48kHz, 01: 88.2/96kHz
56	FSSEL1	I	fs setting input 1 10: 176.4/192kHz, 11: 29.4/32kHz
57	VSSOUT	–	Digital GND
58	VDDOUT	–	Digital VDD (3.3V)
59	RXSTART	I	Trigger signal input of flow receiving start
60	SACDCHSEL	I	In a through mode, set to 1 in SACD 5 channel receiving. 0: 2ch•6 ch, 1: In 5ch flow receiving, a channel is distinguished automatically by ansillary data.
61	FMUTE	I	Forced mute control signal input Reflect to SDMUTEO.
62	FSTATE0	O	Status output 0 of memory in the flow
63	FSTATE1	O	Status output 1 of memory in the flow 00: Empty < 01: fast < 11: standard < 10: slow • full
64	FSTATE2	O	Status output 2 of flow receive data When received data type to be different from the set data type,active High.
65	TDI	I	Boundary Scan TAP pin
66	TDO	O	Boundary Scan TAP pin
67	TMS	I	Boundary Scan TAP pin
68	TCK	I	Boundary Scan TAP pin
69	TRST	I	Boundary Scan TAP pin
70	SACDMKIN	I	SACD bit clock input
71	SACDFRIN	I	SACD frame signal input
72	SACDD0IN	I	SACD data input 0 (ch1)
73	VSSCORE	–	Digital GND (for inside)
74	VDDCORE	–	Digital VDD (3.3V, for inside)
75	SACDD1IN	I	SACD data input 1 (ch2)
76	SACDD2IN	I	SACD data input 2 (ch3)
77	SACDD3IN	I	SACD data input 3 (ch4)
78	SACDD4IN	I	SACD data input 4 (ch5)
79	SACDD5IN	I	SACD data input 5 (ch6)
80	SACDDAIN	I	SACD ansillary data input
81	AMCLKIN	I	Master clock input (VCO) at through mode
82	SPDIFIN	I	IEC60958 input Data valid input at flow
83	SDMUTEIN	I	Mute flag input at through mode
84	SDERRIN	I	Data error flag input
85	VCOCLK2O	O	VCO clock output 2 (for 512fs)
86	VCOCLK1O	O	VCO clock output 1 (for 768fs)
87	REFSYT	I	PLL reference input (at passive filter)
88	DIVVCO	I	PLL VCO dividing input (at passive filter)
89	VCOEN	I	Built-in VCO control input Low: stop, High: oscillation
90	VSSCORE	–	Digital GND (for inside)
91	VDDCORE	–	Digital VDD (3.3V, for inside)
92	VSSOUT	–	Connect to analog GND
93	VSSPASS	–	Analog GND
94	VDDPASS	–	Analog VDD (3.3V)
95	LPOUT	O	Phase comparator output (analog)
96	LPIN	I	VCO control voltage input (analog)

No.	Pin Name	I/O	Function
97	VDDOUT	–	Connect to analog VDD (3.3V)
98	BCKIN	I	MBLA flow BCK input
99	LRCKIN	I	MBLA flow LRCK input
100	SDATA1IN	I	MBLA flow data input 1
101	SDATA2IN	I	MBLA flow data input 2
102	SDATA3IN	I	MBLA flow data input 3
103	SDATA0IN	I	MBLA flow data input 0
104	VSSOUT	–	Digital GND
105	VDDOUT	–	Digital VDD (3.3V)
106	SDA0	O	Address output for external SDRAM
107	SDA1	O	Address output for external SDRAM
108	SDA2	O	Address output for external SDRAM
109	SDA3	O	Address output for external SDRAM
110	SDA4	O	Address output for external SDRAM
111	SDA5	O	Address output for external SDRAM
112	SDA6	O	Address output for external SDRAM
113	SDA7	O	Address output for external SDRAM
114	SDA8	O	Address output for external SDRAM
115	SDA9	O	Address output for external SDRAM
116	SDA10	O	Address output for external SDRAM
117	SDA11	O	Address output for external SDRAM
118	SDA12	O	Address output for external SDRAM
119	SDA13	O	Address output for external SDRAM
120	SDD0	I/O	Data input/output for external SDRAM
121	SDD1	I/O	Data input/output for external SDRAM
122	SDD2	I/O	Data input/output for external SDRAM
123	SDD3	I/O	Data input/output for external SDRAM
124	SDD4	I/O	Data input/output for external SDRAM
125	SDD5	I/O	Data input/output for external SDRAM
126	SDD6	I/O	Data input/output for external SDRAM
127	SDD7	I/O	Data input/output for external SDRAM
128	VSSOUT	–	Digital GND
129	VDDOUT	–	Digital VDD (3.3V)
130	SDD8	I/O	Data input/output for external SDRAM
131	SDD9	I/O	Data input/output for external SDRAM
132	SDD10	I/O	Data input/output for external SDRAM
133	SDD11	I/O	Data input/output for external SDRAM
134	SDD12	I/O	Data input/output for external SDRAM
135	SDD13	I/O	Data input/output for external SDRAM
136	SDD14	I/O	Data input/output for external SDRAM
137	SDD15	I/O	Data input/output for external SDRAM
138	SDCKE	I/O	Data input/output for external SDRAM
139	SDCLK	O	Data input/output for external SDRAM
140	SDDQMU	O	Data input/output for external SDRAM
141	SDXRAS	O	XRAS output for external SDRAM
142	SDXCAS	O	XCAS output for external SDRAM
143	SDXWE	O	XWE output for external SDRAM
144	VSSOUT	–	Digital GND

■ PD5948A8 (MAIN CONTROL ASSY: IC501) (For VSX-AX5i-S)

• Main Microcomputer

● **Pin Assignment (Top view)**



● Pin Function

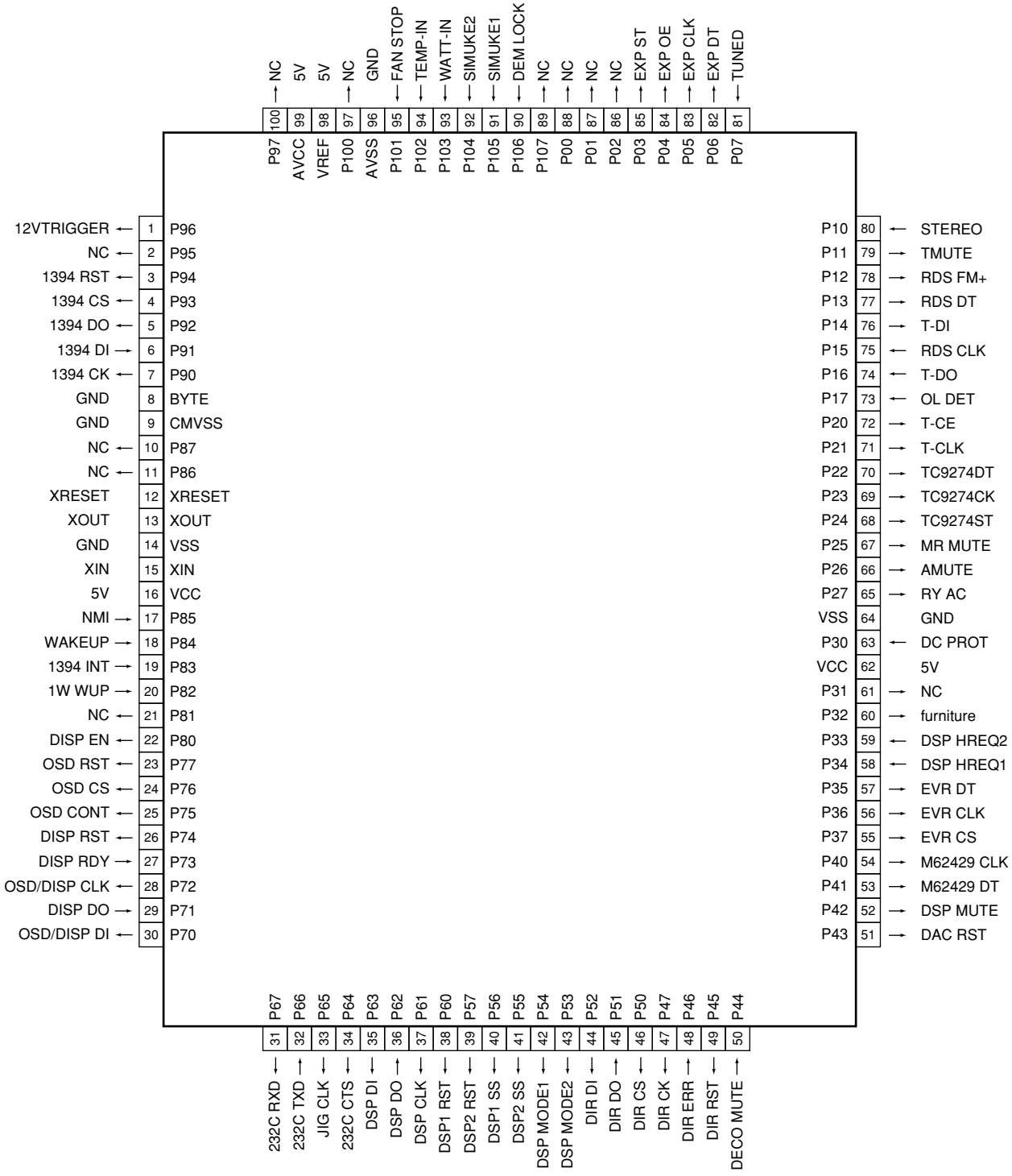
No.	Pin Name	I/O	Pin Function	Active
1	12VTRIGGER	O	"H" at ON	
2	–	O	NC "L" fixed.	
3	1394 RST	O	Reset for 1394	
4	1394 CS	O	Standby for 1394 (Not used) "L" fixed.	
5	1394 DO	O	DO for 1394	
6	1394 DI	I	DI for 1394	
7	1394 CK	O	CK for 1394	
8	GND	–	Ground	
9	CNVSS	–	5.1kΩ pulldown	
10	–	O	L" fixed	
11	–	O	L" fixed	
12	XRESET	–	Reset	
13	XOUT	–	Oscillator	
14	GND	–	Ground	
15	XIN	–	Oscillator	
16	5V	–	5V power supply	
17	NMI	I	Cannot use it as usual input port (100kΩ pullup)	
18	WAKEUP	I	Wakeup	H
19	1394 INT	I	INT for 1394	
20	1W WUP	I	Wakeup signal at standby (from the display microcomputer) (pulldown)	H
21	–	O	L" fixed	
22	DISP EN	O	Communication enabling signal to the display microcomputer	H
23	OSD RST	O	OSD-IC reset signal L: reset, H: release reset	
24	OSD CS	O	OSD-IC chip select signal	H
25	OSD CONT.	O	At data transfer to the OSD-IC: "H"	
26	DISP RST	O	Display microcomputer reset signal L: reset, H: release reset (pulldown)	
27	DISP RDY	I	Communication enabling signal from the display microcomputer	H
28	OSD/DISP CLK	O	Communication clock signal with the OSD-IC/display microcomputer	
29	DISP DO	I	Communication data in signal with the display microcomputer (N ch open drain)	
30	OSD/DISP DI	O	Communication data out signal with the OSD-IC/display microcomputer (N ch open drain: pullup)	
31	232C RXD	O	For 232C rewriting (data output)	
32	232C TXD	I	For 232C rewriting (data input)	
33	CLK	O	Not used	
34	232C CTS	O	For 232C rewriting (communication permission)	
35	DSP DI	O	Communication data out signal with the DSP1 microcomputer	
36	DSP DO	I	Communication data in signal with the DSP2 microcomputer	
37	DSP CLK	O	Communication clock signal with the DSP microcomputer	
38	DSP1 RST	O	DSP1 microcomputer reset signal L: reset, H: release reset	
39	DSP2 RST	O	DSP2 microcomputer reset signal L: reset, H: release reset	
40	DSP1 SS	O	Slave select signal to DSP1 microcomputer	L
41	DSP2 SS	O	Slave select signal to DSP2 microcomputer	L
42	DSP MODE1	O	Mode selection of DSP1 microcomputer (ROM/RAM) H: ROM mode, L: RAM (PPP) mode	H
43	DSP MODE2	O	Mode selection of DSP2 microcomputer (ROM/RAM) H: ROM mode, L: RAM (PPP) mode	H
44	DIR DI	O	Communication data out signal with the DIR	
45	DIR DO	I	Communication data in signal with the DIR/DAC	
46	DIR CS	O	Communication chip select signal with the DIR/DAC	
47	DIR CK	O	Communication clock signal with the DIR/DAC	
48	DIR ERR	I	Lock/Unlock signal	
49	DIR RST	O	DIR reset signal	
50	DECO MUTE	I	Boot success detecting port of 1st DSP	

No.	Pin Name	I/O	Pin Function	Active
51	DAC RST	O	DAC/AD reset	
52	DSP MUTE	O	DSP Assy mute	H
53	M62429 DT	O	Data signal for multi room volume IC control	
54	M62429 CLK	O	Clock signal for multi room volume IC control	
55	EVR CS	O	Chip select signal for erectronic volume	
56	EVR CLK	O	Clock signal for erectronic volume	
57	EVR DT	O	Data signal for erectronic volume	
58	DSP HREQ1	I	Error detection signal of DSP1 microcomputer	
59	DSP HREQ2	I	Error detection signal of DSP2 microcomputer	
60	furniture	O	Furniture control signal	
61	–	O	L" fixed	
62	5V	–	5V power supply	
63	DC PROT	I	DC detection L: Detection	L
64	GND	–	Ground	
65	RC-AC	O	AC relay ON/OFF	H
66	AMUTE	O	System mute L: Mute ON	L
67	MRMUTE	O	Multi room mute L: Mute ON	L
68	tc9274f-st	O	Function SW control (Strobe)	
69	tc9274f-ck	O	Function SW control (Clock)	
70	tc9274f-dt	O	Function SW control (Data)	
71	TUNER CLK	O	Clock signal of tuner control	
72	TUNER CE	O	Chip select signal of tuner control	
73	OL DET	I	Amp. overload detection L: Detection	L
74	TUNER DO	I	Data input signal of tuner control (pullup)	
75	RDS CLK	O	L" fixed	
76	TUNER DI	O	Data output signal of tuner control	
77	RDS DT	O	L" fixed	
78	RDS FM+	O	L" fixed	
79	TMUTE	O	Tuner mute	H
80	STEREO	I	L: STEREO (pullup)	L
81	TUNED	I	L: TUNED (pullup)	L
82	EXP DT	O	Data signal of expansion IC control	
83	EXP CLK	O	Clock signal of expansion IC control	
84	EXP OE	O	Output enable signal of expansion IC control	
85	EXP ST	O	Chip clock signal of expansion IC control	
86	–	O	NC	
87	–	O	NC	
88	–	O	NC	
89	–	O	NC	
90	DEM LOCK	I	Not used	
91	SIMUKE1	I	Destination read 1	
92	SIMUKE2	I	Destination read 2	
93	WATT-IN	I	Wattage detection Level detection with A/D	A/D
94	TEMP-IN	I	Temperature detection Level detection with A/D	A/D
95	FAN STOP	I	Fan forced stop detection	H
96	AVSS	–	Connect to VSS	
97	–	O	NC	L
98	VREF	–	Connect to VCC	
99	AVCC	–	Connect to VCC	
100	–	O	NC	

■ PD5899A (MAIN CONTROL ASSY: IC501) (For VSX-AX3-S, -K)

• Main Microcomputer

● Pin Assignment (Top view)


1 12VTRIGGER ← P96
2 NC ← P95
3 1394 RST ← P94
4 1394 CS ← P93
5 1394 DO ← P92
6 1394 DI → P91
7 1394 CK ← P90
8 GND BYTE
9 GND CMVSS
10 NC ← P87
11 NC ← P86
12 XRESET XRESET
13 XOUT XOUT
14 GND VSS
15 XIN XIN
16 5V VCC
17 NMI → P85
18 WAKEUP → P84
19 1394 INT → P83
20 1W WUP → P82
21 NC ← P81
22 DISP EN ← P80
23 OSD RST ← P77
24 OSD CS ← P76
25 OSD CONT ← P75
26 DISP RST ← P74
27 DISP RDY → P73
28 OSD/DISP CLK ← P72
29 DISP DO → P71
30 OSD/DISP DI ← P70
31 P67 232C RXD ←
32 P66 232C TXD →
33 P65 JIG CLK ←
34 P64 232C CTS ←
35 P63 DSP DI ←
36 P62 DSP DO →
37 P61 DSP CLK ←
38 P60 DSP1 RST ←
39 P57 DSP2 RST ←
40 P56 DSP1 SS ←
41 P55 DSP2 SS ←
42 P54 DSP MODE1 ←
43 P53 DSP MODE2 ←
44 P52 DIR DI ←
45 P51 DIR DO →
46 P50 DIR CS ←
47 P47 DIR CK ←
48 P46 DIR ERR →
49 P45 DIR RST ←
50 P44 DECO MUTE →
51 P43 → DAC RST
52 P42 → DSP MUTE
53 P41 → M62429 DT
54 P40 → M62429 CLK
55 P37 → EVR CS
56 P36 → EVR CLK
57 P35 → EVR DT
58 P34 ← DSP HREQ1
59 P33 ← DSP HREQ2
60 P32 → furniture
61 P31 → NC
62 VCC 5V
63 P30 ← DC PROT
64 VSS GND
65 P27 → RY AC
66 P26 → AMUTE
67 P25 → MR MUTE
68 P24 → TC9274ST
69 P23 → TC9274CK
70 P22 → TC9274DT
71 P21 → T-CLK
72 P20 → T-CE
73 P17 ← OL DET
74 P16 ← T-DO
75 P15 ← RDS CLK
76 P14 → T-DI
77 P13 → RDS DT
78 P12 → RDS FM+
79 P11 → TMUTE
80 P10 ← STEREO
81 P07 TUNED ←
82 P06 EXP DT ←
83 P05 EXP CLK ←
84 P04 EXP OE ←
85 P03 EXP ST ←
86 P02 NC →
87 P01 NC →
88 P00 NC →
89 P107 NC →
90 P106 DEM LOCK ←
91 P105 SIMUKE1 ←
92 P104 SIMUKE2 ←
93 P103 WATT-IN ←
94 P102 TEMP-IN ←
95 P101 FAN STOP ←
96 AVSS GND
97 P100 NC →
98 VREF 5V
99 AVCC 5V
100 P97 NC →

● Pin Function

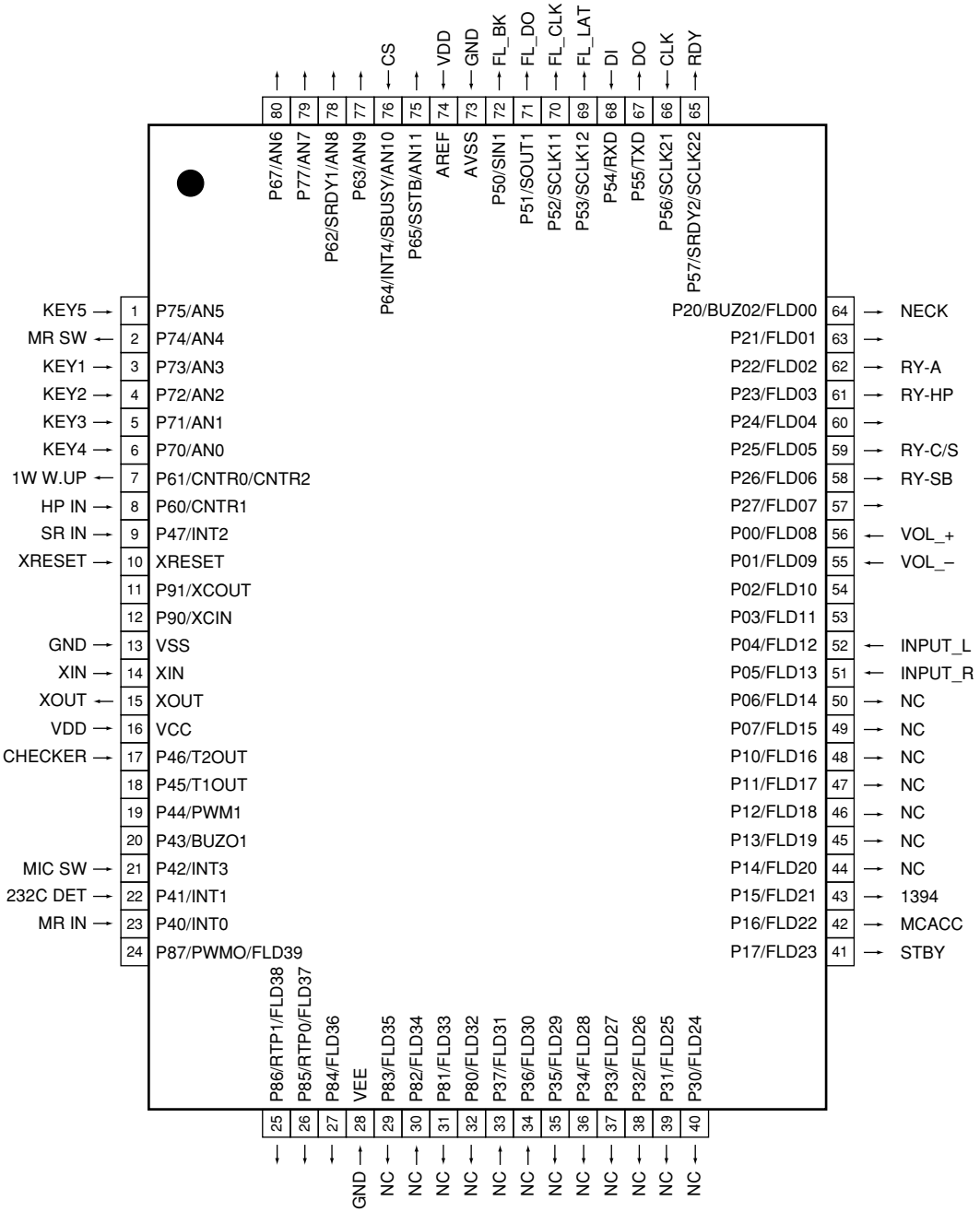
No.	Pin Name	I/O	Pin Function	Active
1	12VTRIGGER	O	"H" at ON	
2	–	O	NC "L" fixed.	
3	1394 RST	O	RST for 1394 (Not used) "L" fixed.	
4	1394 CS	O	Standby for 1394 (Not used) "L" fixed.	
5	1394 DO	O	DO for 1394 (Not used) "L" fixed.	
6	1394 DI	I	DI for 1394 (Not used) Standby with the circuit.	
7	1394 CK	O	CLK for 1394 (Not used) "L" fixed.	
8	GND	–	Ground	
9	CNVSS	–	5.1kΩ pulldown	
10	–	O	L" fixed	
11	–	O	L" fixed	
12	XRESET	–	Reset	
13	XOUT	–	Oscillator	
14	GND	–	Ground	
15	XIN	–	Oscillator	
16	5V	–	5V power supply	
17	NMI	I	Cannot use it as usual input port (100kΩ pullup)	
18	WAKEUP	I	Wakeup	H
19	1394 INT	I	INT for 1394 (Not used) Standby with the circuit.	
20	1W WUP	I	Wakeup signal at standby (from the display microcomputer) (pulldown)	H
21	–	O	L" fixed	
22	DISP EN	O	Communication enabling signal to the display microcomputer	H
23	OSD RST	O	OSD-IC reset signal L: reset, H: release reset	
24	OSD CS	O	OSD-IC chip select signal	H
25	OSD CONT.	O	At data transfer to the OSD-IC: "H"	
26	DISP RST	O	Display microcomputer reset signal L: reset, H: release reset (pulldown)	
27	DISP RDY	I	Communication enabling signal from the display microcomputer	H
28	OSD/DISP CLK	O	Communication clock signal with the OSD-IC/display microcomputer	
29	DISP DO	I	Communication data in signal with the display microcomputer (N ch open drain)	
30	OSD/DISP DI	O	Communication data out signal with the OSD-IC/display microcomputer (N ch open drain: pullup)	
31	232C RXD	O	For 232C rewriting (data output)	
32	232C TXD	I	For 232C rewriting (data input)	
33	CLK	O	Not used	
34	232C CTS	O	For 232C rewriting (communication permission)	
35	DSP DI	O	Communication data out signal with the DSP1 microcomputer	
36	DSP DO	I	Communication data in signal with the DSP2 microcomputer	
37	DSP CLK	O	Communication clock signal with the DSP microcomputer	
38	DSP1 RST	O	DSP1 microcomputer reset signal L: reset, H: release reset	
39	DSP2 RST	O	DSP2 microcomputer reset signal L: reset, H: release reset	
40	DSP1 SS	O	Slave select signal to DSP1 microcomputer	L
41	DSP2 SS	O	Slave select signal to DSP2 microcomputer	L
42	DSP MODE1	O	Mode selection of DSP1 microcomputer (ROM/RAM) H: ROM mode, L: RAM (PPP) mode	H
43	DSP MODE2	O	Mode selection of DSP2 microcomputer (ROM/RAM) H: ROM mode, L: RAM (PPP) mode	H
44	DIR DI	O	Communication data out signal with the DIR	
45	DIR DO	I	Communication data in signal with the DIR/DAC	
46	DIR CS	O	Communication chip select signal with the DIR/DAC	
47	DIR CK	O	Communication clock signal with the DIR/DAC	
48	DIR ERR	I	Lock/Unlock signal	
49	DIR RST	O	DIR reset signal	
50	DECO MUTE	I	Boot success detecting port of 1st DSP	

No.	Pin Name	I/O	Pin Function	Active
51	DAC RST	O	DAC/AD reset	
52	DSP MUTE	O	DSP Assy mute	H
53	M62429 DT	O	Data signal for multi room volume IC control	
54	M62429 CLK	O	Clock signal for multi room volume IC control	
55	EVR CS	O	Chip select signal for erectronic volume	
56	EVR CLK	O	Clock signal for erectronic volume	
57	EVR DT	O	Data signal for erectronic volume	
58	DSP HREQ1	I	Error detection signal of DSP1 microcomputer	
59	DSP HREQ2	I	Error detection signal of DSP2 microcomputer	
60	furniture	O	Furniture control signal	
61	–	O	L" fixed	
62	5V	–	5V power supply	
63	DC PROT	I	DC detection L: Detection	L
64	GND	–	Ground	
65	RC-AC	O	AC relay ON/OFF	H
66	AMUTE	O	System mute L: Mute ON	L
67	MRMUTE	O	Multi room mute L: Mute ON	L
68	tc9274f-st	O	Function SW control (Strobe)	
69	tc9274f-ck	O	Function SW control (Clock)	
70	tc9274f-dt	O	Function SW control (Data)	
71	TUNER CLK	O	Clock signal of tuner control	
72	TUNER CE	O	Chip select signal of tuner control	
73	OL DET	I	Amp. overload detection L: Detection	L
74	TUNER DO	I	Data input signal of tuner control (pullup)	
75	RDS CLK	O	L" fixed	
76	TUNER DI	O	Data output signal of tuner control	
77	RDS DT	O	L" fixed	
78	RDS FM+	O	L" fixed	
79	TMUTE	O	Tuner mute	H
80	STEREO	I	L: STEREO (pullup)	L
81	TUNED	I	L: TUNED (pullup)	L
82	EXP DT	O	Data signal of expansion IC control	
83	EXP CLK	O	Clock signal of expansion IC control	
84	EXP OE	O	Output enable signal of expansion IC control	
85	EXP ST	O	Chip clock signal of expansion IC control	
86	–	O	NC	
87	–	O	NC	
88	–	O	NC	
89	–	O	NC	
90	DEM LOCK	I	Not used	
91	SIMUKE1	I	Destination read 1	
92	SIMUKE2	I	Destination read 2	
93	WATT-IN	I	Wattage detection Level detection with A/D	A/D
94	TEMP-IN	I	Temperature detection Level detection with A/D	A/D
95	FAN STOP	I	Fan forced stop detection	H
96	AVSS	–	Connect to VSS	
97	–	O	NC	L
98	VREF	–	Connect to VCC	
99	AVCC	–	Connect to VCC	
100	–	O	NC	

■ PD5771B (DISPLAY ASSY: IC3000)

• Display Microcomputer

● Pin Assignment (Top view)



● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	KEY5	I	KEY AD input	41	STANDBY	O	Standby LED
2	MR SW	O	Multi room input Pioneer/others L: Pioneer	42	MCACC	O	MCACC LED
3	KEY1	I	KEY AD input	43	1394	O	1394 LED
4	KEY2			44	NC	O	Non connection
5	KEY3			45	NC		
6	KEY4			46	NC		
7	1W WUP	O	1W correspondence main wakeup	47	NC		
8	HP	I	Headphone detection (active: H)	48	NC		
9	SR IN	I	Remote control input of main room	49	NC		
10	RESET	–	Reset input from the main microcomputer	50	NC		
11	NC	O	Non connection	51	INPUT_R	I	Input selector RIGHT
12	NC			52	INPUT_L	I	Input selector LEFT
13	Vss	–	Ground	53	NC	O	Non connection
14	XIN	–	Oscillator	54	NC	O	Non connection
15	XOUT	–	Oscillator	55	VOL_–	I	Volume – direction
16	Vcc	–	Power supply 5V	56	VOL_+	I	Volume + direction
17	CHECKER	I	Checker mode detection (10kΩ pulldown)	57	NC	O	Non connection
18	NC	O	Non connection	58	RY-SB	O	Surround back/SP-B relay ON/OFF (active: H)
19	NC			59	RY-C/S	O	C/S relay ON/OFF (active: H)
20	NC			60	NC	O	Non connection
21	MIC SW	I	MIC detection	61	RY-HP	O	Headphone relay ON/OFF (active: H)
22	232C DET	I	232C signal input detection	62	RY-A	O	Speaker A relay ON/OFF (active: H)
23	MR IN	I	Remote control input of sub room (active: H)	63	NC	O	Non connection
24	NC	O	Non connection	64	NECK	O	6/8Ω switch L: 6Ω, H: 8Ω, Initial: 8Ω
25	NC	O	Non connection	65	RDY	O	Communication ready with main UCOM
26	NC			66	CLK	O	Communication clock with main UCOM
27	NC			67	DO	O	Communication data out with main UCOM
28	VEE	–	Ground	68	DI	I	Communication data in with main UCOM
29	NC	O	Non connection	69	FL_LAT	O	FL DRV LAT
30	NC			70	FL_CLK	O	FL DRV CLK
31	NC			71	FL_DO	O	FL DRV DATA
32	NC			72	FL_BK	O	FL DRV BK
33	NC			73	AVSS	–	Ground
34	NC			74	VREF	–	5V reference voltage
35	NC			75	NC	O	Non connection
36	NC			76	CS	I	Communication CS with main UCOM
37	NC			77	NC	O	Non connection
38	NC			78	NC		
39	NC			79	NC		
40	NC			80	NC		

■ BU4094BCF (MAIN CONTROL ASSY: IC502)

• Expansion IC

● Pin Function

No.	Pin Name	Pin Function	Active
1	DEM_STP	Demodulator oscillation OFF/ON	H
2	DEM_RST	Demodulator reset L: RESET	L
3	NJM2279_SW1	NJM2279 video control of sub room system	
4	NJM2279_SW2		H
5	NJM2596_SW2	NJM2596 video control of main system	H
6	NJM2596_SW3		H
7	NJM2596_SW4		H
8	NJM2596_SW5		

■ BU4094BCF (MAIN CONTROL ASSY: IC503)

• Expansion IC

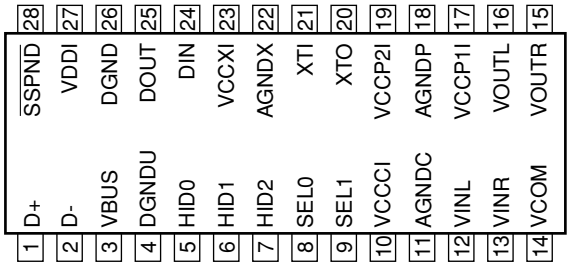
● Pin Function

No.	Pin Name	Pin Function	Active
1	OSD ON	ON at OSD on	H
2	TC9215_C34	Switch the DSP/DIRECT/MULTI CH IN of surround signal H: Multi ch input path	
3	PHONO GAIN	"H" at PHONO equalizer ON	H
4	DSDM	DSD DIRECT control (VSX-55TXi only)	
5	TC74HC4053_INH	Select the Component/D4 input (2 inputs → 1 output)	
6	TC74HC4053_A		
7	FAN DRIVE	ON when rotates the FAN	H
8	LOFAN	Not used "H" fixed	

■ PCM2902EG (COAXIAL IN ASSY: IC1681)

• USB Codec IC

● Pin Assignment (Top view)

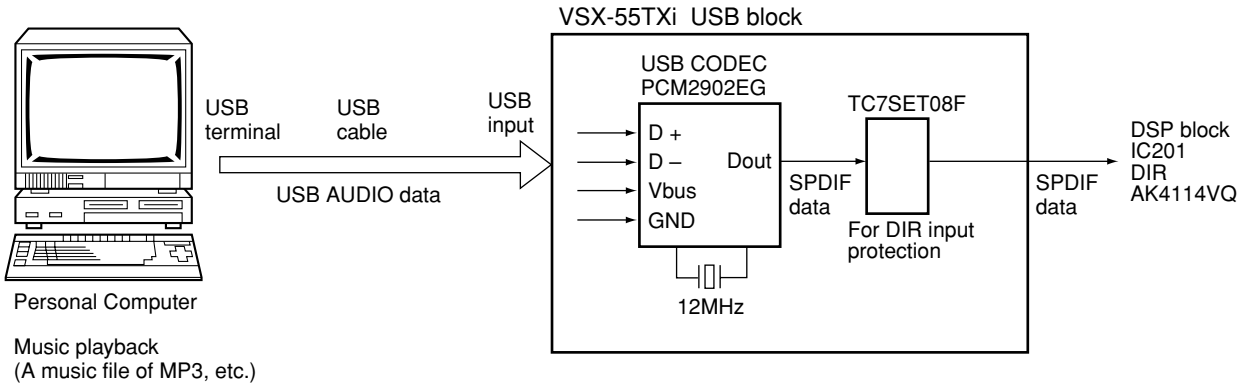

28 27 26 25 24 23 22 21 20 19 18 17 16 15
SSPND VDDI DGND DOUT DIN VCCXI AGNDX XTI XTO VCCP2I AGNDP VCCP1I VOUTL VOUTR
D+ D- VBUS DGNDU HID0 HID1 HID2 SEL0 SEL1 VCCCI AGNDC VINL VINR VCOM
1 2 3 4 5 6 7 8 9 10 11 12 13 14

● Pin Function

No.	Pin Name	I/O	Pin Function
1	D+	I/O	USB differential input/output plus(1)
2	D–	I/O	USB differential input/output minus(1)
3	VBUS	I	Connect to USB power (VBUS)
4	DGNDU	–	Digital ground for USB transceiver
5	HID0	I	HID key state input (mute), active high(3)
6	HID1	I	HID key state input (volume up), active high(3)
7	HID2	I	HID key state input (volume down), active high(3)
8	SEL0	I	Must be set to high(6)
9	SEL1	I	Must be set to high(6)
10	VCCCI	–	Internal analog power supply for codec(4)
11	AGNDC	–	Analog ground for codec
12	VINL	I	ADC analog input for L-channel
13	VINR	I	ADC analog input for R-channel
14	VCOM	–	Common for ADC/DAC (VCCCI/2) (4)
15	VOUTR	O	DAC Analog output for R-channel
16	VOUTL	O	DAC analog output for L-channel
17	VCCP1I	–	Internal analog power supply for PLL(4)
18	AGNDP	–	Analog ground for PLL
19	VCCP2I	–	Internal analog power supply for PLL(4)
20	XTO	O	Crystal oscillator output
21	XTI	I	Crystal oscillator input(2)
22	AGNDX	–	Analog ground for oscillator
23	VCCXI	–	Internal analog power supply for oscillator(4)
24	DIN	I	S/PDIF input(5)
25	DOUT	O	S/PDIF output
26	DGND	–	Digital ground
27	VDDI	–	Internal digital power supply(4)
28	$\overline{\text{SSPND}}$	O	Suspend flag, active low (Low: suspend, High: operational)

(1) LV-TTL level
(2) 3.3-V CMOS level input
(3) 3.3-V CMOS level input with internal pulldown. This pin informs the PC of serviceable control signals such as mute, volume up, or volume down, which has no connection with the internal DAC or ADC directly. See the volume control and mute control section.
(4) Connect a decouple capacitor to GND
(5) 3.3-V CMOS level input with internal pulldown, 5 V tolerant
(6) TTL Schmitt trigger, 5 V tolerant

● Flow of USB Input Data



About PCM2902EG

- With codec of USB BUS POWERED, power is supplied from Vbus of USB, and work. (work with a power supply of VSX-55TXi irrelatively.)
- Be USB codec, but analog I/O and digital (SPDIF) input are not using in VSX-55TXi.
- When only connects to PC and receiver (VSX-55TXi) is turned on, the output of TC7SET08F outputs.

● Help of Non-failure Decision

Symptom when a sound is not output (Symptom is different by each OS)

- Confirm a driver whether PC is recognizing it. (With a device manager).
- Is a switch of sound sourse performed properly? (Control Panel, Sound or Multimedia)
- Is volume control of PC adjusted?
- How is other PC?
- In the state that does not change PC setting, is sound output in other VSX-55TXi?
- When uses CD-ROM and playback a music CD, and a sound is not output, is digital playback of CD-ROM checked?

When contain noise

- There is a bug in early USB AUDIO driver of WINDOWS XP, and contain noise once for several minutes. (Correspond with WINDOWS UPDATE.)
- An affinity problem with chip set
- Adaptation problem with chip set (refer to next item)
- Performance issue of PC. (Release resident software as measures.)
- Noise when using the other software during music playback. (Do not guarantee or do not use the other software)
- Do contain the same noise even if changes the PC?

Reference

Confirmation item of the USB part with Function checker.
Supply a power supply (+5V: pin 3, GND: pin 4) of IC1681 (PCM2902EG), and connect D+ (pin1) to GND.
Confirm that X1681 (ASS7047) starts oscillating.

Support OS	
Windows	98 / 98SE / ME
Windows	2000 Professional
Windows	XP Home / Professional

● Adaptation Problem with Chip Set

PCM2902EG caution of operation

Operating environment and findings of PCM2902EG

Evaluation PC: Libretto PAL2060 TNML made by Toshiba

(1) CPU: Crusoe 600MHz made by Transmeta
Use chip set: Transmeta N/B (North Bridge)
M1533 (South Bridge) made by ALi
OS: Windows ME

(2) CPU: Cerelon 566MHz made by Intel
Use chip set: Aladdin Pro 5 (North Bridge) and M1533 (South Bridge) made by ALi
OS: Windows ME

(3) CPU: K6-2 400MHz made by AMD
Use chip set: Aladdin 5 (North Bridge) and M1543 (South Bridge) made by ALi
OS: Windows ME

When contain noise by a problem of the chip set side, there is a problem in the PC side because even other USB audio equipment contains noise.

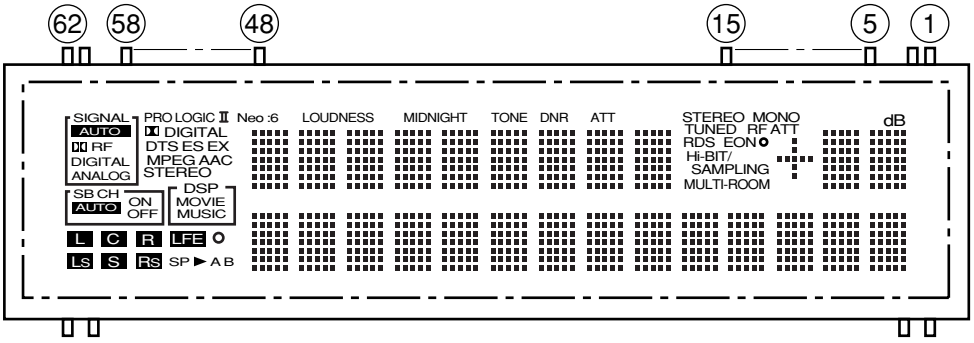
Therefore, do not recommend use in the condition and environment as mentioned above.

7.2.2 DISPLAY

■ AAV7087 (DISPLAY ASSY : V3000)

• FL DISPLAY

• Pin Assignment

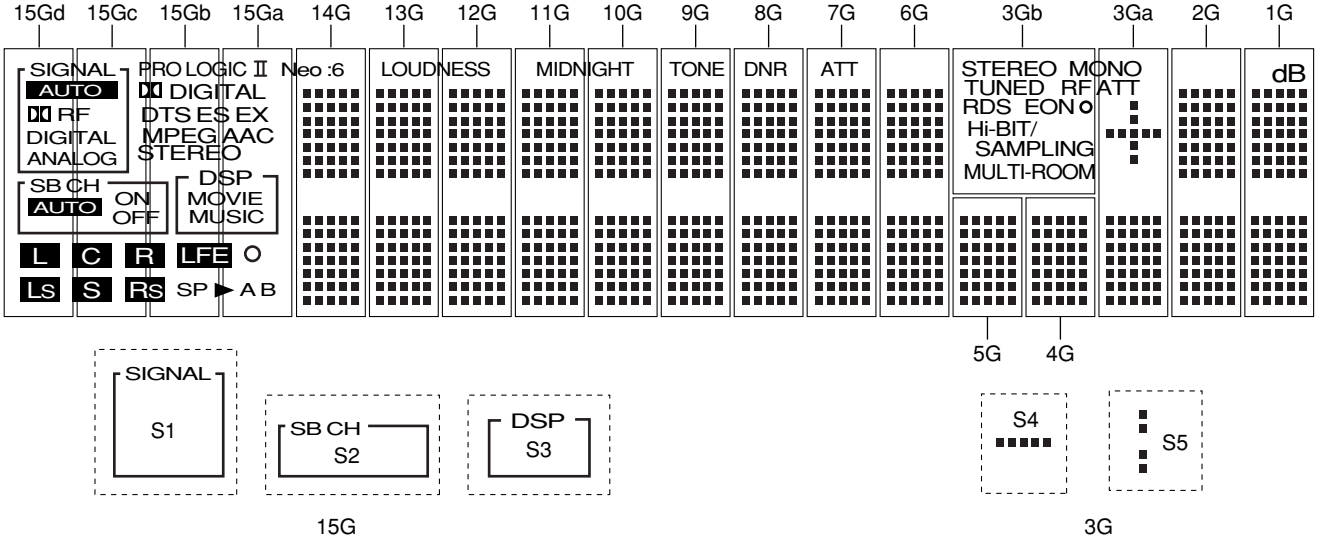


• Pin Connection

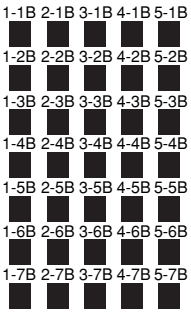
Pin No.	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47-3	2	1
Connection	F2	F2	NP	NP	GND	GND	NC	VH	NC	VDD	BK	LAT	CLK	SI	SO	NP	F1	F1

NOTE
1) F1, F2..... Filament
2) NP..... No pin (5-15 cut it by 2mm)
3) DL..... Datum Line
4) GND..... GND pin
5) VH..... High Voltage Supply pin
6) VDD..... Logic Voltage Supply pin
7) NC..... No connection
(NC pin should be electrically open on the PC board)
8) BK..... Driver Output Blanking
9) LAT..... Latch Control Input
10) CLK..... Shift Register Clock
11) SI..... Serial Data Input
12) SO..... Serial Data Output
(to be open, if don't use)
13) Field of vision is a minimum of 21°
from the lower side.

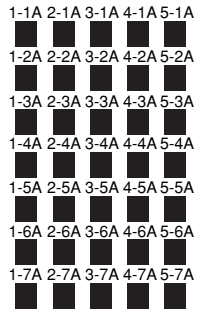
• Grid Assignment



• Segment Designation



(Lower stage)
(14G to 1G)



(Upper stage)
(14G to 6G, 2G, 1G)

• Anode Connection

	15Gd-15Ga	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3Gb, 3Ga	2G	1G
P1	Neo:6		LOUDNESS		MIDNIGHT		TONE	DNR	ATT	–	–	–	STEREO	–	dB
P2	PROLOGIC	1-1A	1-1A	1-1A	1-1A	1-1A	1-1A	1-1A	1-1A	1-1A	–	–	MONO	1-1A	1-1A
P3	Ⅱ	2-1A	2-1A	2-1A	2-1A	2-1A	2-1A	2-1A	2-1A	2-1A	–	–	TUNED	2-1A	2-1A
P4	S1	3-1A	3-1A	3-1A	3-1A	3-1A	3-1A	3-1A	3-1A	3-1A	–	–	RF ATT	3-1A	3-1A
P5	AUTO	4-1A	4-1A	4-1A	4-1A	4-1A	4-1A	4-1A	4-1A	4-1A	–	–	RDS	4-1A	4-1A
P6	RF	5-1A	5-1A	5-1A	5-1A	5-1A	5-1A	5-1A	5-1A	5-1A	–	–	EON	5-1A	5-1A
P7	DIGITAL	1-2A	1-2A	1-2A	1-2A	1-2A	1-2A	1-2A	1-2A	1-2A	–	–	○	1-2A	1-2A
P8	ANALOG	2-2A	2-2A	2-2A	2-2A	2-2A	2-2A	2-2A	2-2A	2-2A	–	–	HI-BIT/ SAMPLING	2-2A	2-2A
P9	DIGITAL	3-2A	3-2A	3-2A	3-2A	3-2A	3-2A	3-2A	3-2A	3-2A	–	–	S4	3-2A	3-2A
P10	DTS	4-2A	4-2A	4-2A	4-2A	4-2A	4-2A	4-2A	4-2A	4-2A	–	–	S5	4-2A	4-2A
P11	ES	5-2A	5-2A	5-2A	5-2A	5-2A	5-2A	5-2A	5-2A	5-2A	–	–	–	5-2A	5-2A
P12	EX	1-3A	1-3A	1-3A	1-3A	1-3A	1-3A	1-3A	1-3A	1-3A	–	–	–	1-3A	1-3A
P13	MPEG	2-3A	2-3A	2-3A	2-3A	2-3A	2-3A	2-3A	2-3A	2-3A	–	–	–	2-3A	2-3A
P14	AAC	3-3A	3-3A	3-3A	3-3A	3-3A	3-3A	3-3A	3-3A	3-3A	–	–	–	3-3A	3-3A
P15	STEREO	4-3A	4-3A	4-3A	4-3A	4-3A	4-3A	4-3A	4-3A	4-3A	–	–	–	4-3A	4-3A
P16	S2	5-3A	5-3A	5-3A	5-3A	5-3A	5-3A	5-3A	5-3A	5-3A	–	–	–	5-3A	5-3A
P17	AUTO	1-4A	1-4A	1-4A	1-4A	1-4A	1-4A	1-4A	1-4A	1-4A	–	–	–	1-4A	1-4A
P18	ON	2-4A	2-4A	2-4A	2-4A	2-4A	2-4A	2-4A	2-4A	2-4A	–	–	–	2-4A	2-4A
P19	OFF	3-4A	3-4A	3-4A	3-4A	3-4A	3-4A	3-4A	3-4A	3-4A	–	–	–	3-4A	3-4A
P20	S3	4-4A	4-4A	4-4A	4-4A	4-4A	4-4A	4-4A	4-4A	4-4A	–	–	–	4-4A	4-4A
P21	MOVIE	5-4A	5-4A	5-4A	5-4A	5-4A	5-4A	5-4A	5-4A	5-4A	–	–	–	5-4A	5-4A
P22	MUSIC	1-5A	1-5A	1-5A	1-5A	1-5A	1-5A	1-5A	1-5A	1-5A	–	–	–	1-5A	1-5A
P23	L	2-5A	2-5A	2-5A	2-5A	2-5A	2-5A	2-5A	2-5A	2-5A	–	–	–	2-5A	2-5A
P24	C	3-5A	3-5A	3-5A	3-5A	3-5A	3-5A	3-5A	3-5A	3-5A	–	–	–	3-5A	3-5A
P25	R	4-5A	4-5A	4-5A	4-5A	4-5A	4-5A	4-5A	4-5A	4-5A	–	–	–	4-5A	4-5A
P26	LS	5-5A	5-5A	5-5A	5-5A	5-5A	5-5A	5-5A	5-5A	5-5A	–	–	–	5-5A	5-5A
P27	S	1-6A	1-6A	1-6A	1-6A	1-6A	1-6A	1-6A	1-6A	1-6A	–	–	–	1-6A	1-6A
P28	RS	2-6A	2-6A	2-6A	2-6A	2-6A	2-6A	2-6A	2-6A	2-6A	–	–	–	2-6A	2-6A
P29	LFE	3-6A	3-6A	3-6A	3-6A	3-6A	3-6A	3-6A	3-6A	3-6A	–	–	–	3-6A	3-6A
P30	○	4-6A	4-6A	4-6A	4-6A	4-6A	4-6A	4-6A	4-6A	4-6A	–	–	–	4-6A	4-6A
P31	SP ▶	5-6A	5-6A	5-6A	5-6A	5-6A	5-6A	5-6A	5-6A	5-6A	–	–	–	5-6A	5-6A
P32	A	1-7A	1-7A	1-7A	1-7A	1-7A	1-7A	1-7A	1-7A	1-7A	–	–	–	1-7A	1-7A
P33	B	2-7A	2-7A	2-7A	2-7A	2-7A	2-7A	2-7A	2-7A	2-7A	–	–	–	2-7A	2-7A
P34	–	3-7A	3-7A	3-7A	3-7A	3-7A	3-7A	3-7A	3-7A	3-7A	–	–	–	3-7A	3-7A
P35	–	4-7A	4-7A	4-7A	4-7A	4-7A	4-7A	4-7A	4-7A	4-7A	–	–	–	4-7A	4-7A
P36	–	5-7A	5-7A	5-7A	5-7A	5-7A	5-7A	5-7A	5-7A	5-7A	–	–	–	5-7A	5-7A
P37	–	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B
P38	–	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B
P39	–	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B
P40	–	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B
P41	–	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B
P42	–	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B
P43	–	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B
P44	–	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B
P45	–	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B
P46	–	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B
P47	–	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B
P48	–	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B
P49	–	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B
P50	–	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B
P51	–	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B
P52	–	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B
P53	–	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B
P54	–	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B
P55	–	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B
P56	–	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B
P57	–	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B
P58	–	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B
P59	–	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B
P60	–	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B
P61	–	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B
P62	–	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B
P63	–	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B
P64	–	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B
P65	–	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B
P66	–	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B
P67	–	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B
P68	–	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B
P69	–	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B
P70	–	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B
P71	–	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B

• Anode Timing Chart

	15Gd-15Ga	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3Gb, 3Ga	2G	1G
P1	T18		T17		T16		T9	T8	T7	–	–	–	T3	–	T1
P2	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	–	–	T3	T2	T1
|	|	|	|	|	|	|	|	|	|	|	|	|	|	|
P11	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	–	–	T3	T2	T1
P12	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	–	–	–	T2	T1
|	|	|	|	|	|	|	|	|	|	|	|	|	|	|
P12	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	–	–	–	T2	T1
P33	–	T14	T13	T12	T11	T10	T9	T8	T7	T6	–	–	–	T2	T1
|	|	|	|	|	|	|	|	|	|	|	|	|	|	|
P71	–	T14	T13	T12	T11	T10	T9	T8	T7	T6	–	–	–	T2	T1

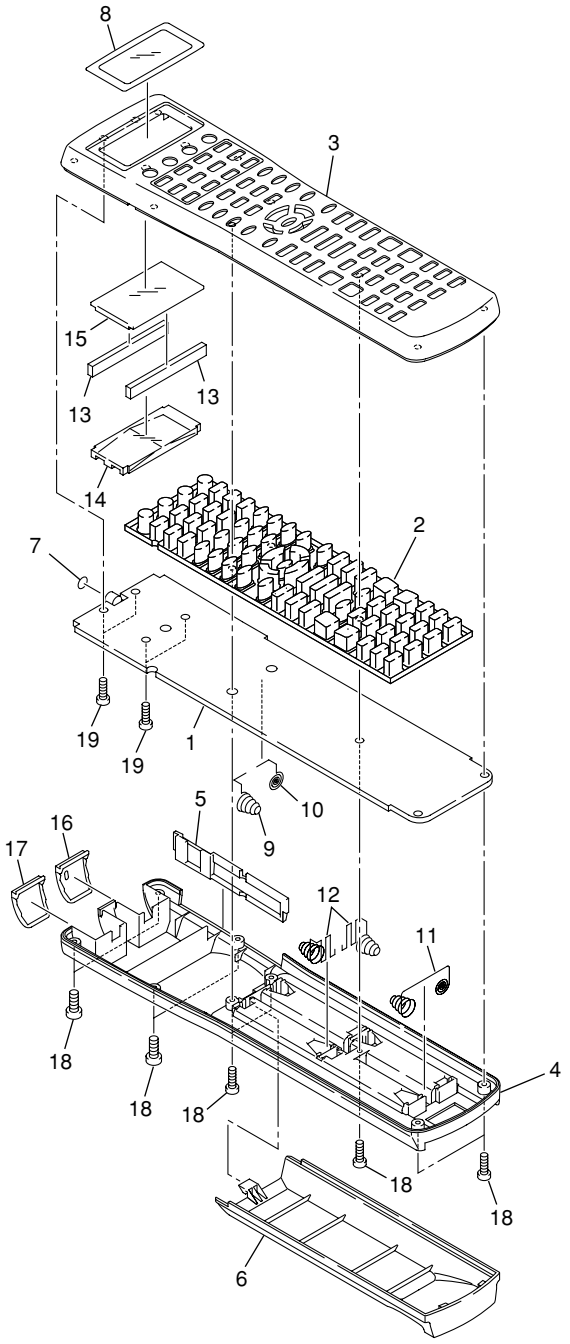
7.3 CLEANING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

7.4 REMOTE CONTROL UNIT

7.4.1 EXPLODED VIEWS AND PARTS LIST (VSX-AX5i-S: AXD7364)

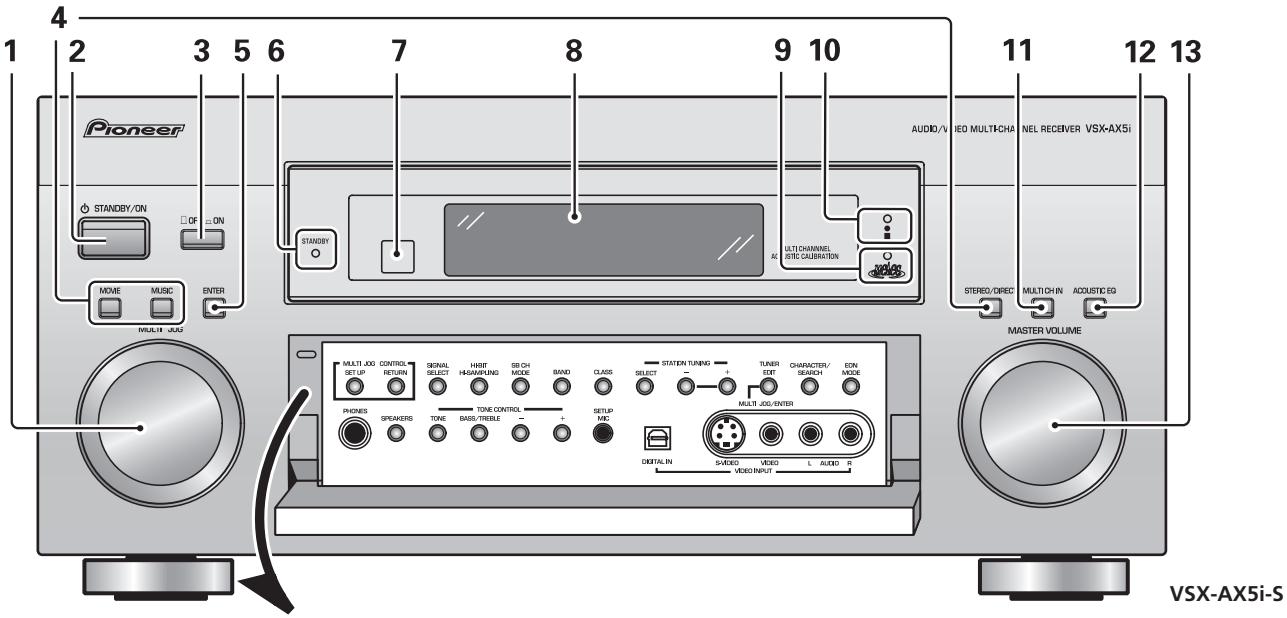


Mark	No.	Description	Part No.
	1	PCB Assy	AZC7301
	2	Rubber Key	AZA7425
	3	Case A	AZN7938
	4	Case B	AZN7939
	5	Frame	AZN7941
	6	Battery Cover	AZN7940
	7	MIC Cap	AZN7942
	8	Name Plate	201RRC-314-01L
	9	Terminal A	411RRC-212-01G
	10	Terminal B	411RRC-213-01G
	11	Battery Terminal	413RRC-143-01R
	12	Spring	413RRC-171-01G
	13	Connector	423RRC-046-01G
	14	Plate	481RRC-018-01G
	15	Shield Plate	801RRC-020-01L
	16	Filter A	811RRC-109-01G
	17	Filter B	811RRC-110-01G
	18	Screw	A-BA2008-225002
	19	Screw	A-BJ2006

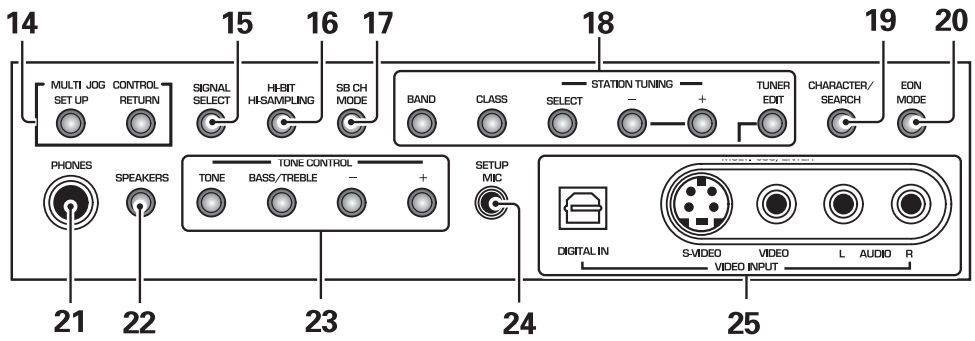
8. PANEL FACILITIES

8.1 FRONT PANEL

All the controls on the front panel are explained and/or referenced here. To open the front panel push gently on the lower third of the panel.



VSX-AX5i-S



European model

1 MULTI JOG dial

You can use this dial for many purposes. When you press the SET UP button (14), you can use it to perform SYSTEM SETUP operations; select a function or a listening mode or do TUNER EDIT functions (in TUNER mode).

2 ⏻STANDBY/ON button

Press to switch the receiver ON or into STANDBY mode.

3 ▮OFF ▁ON button

Press to switch the receiver between OFF and STANDBY mode or ON.

4 Listening mode buttons

There are two types of SURROUND modes:

MOVIE: Press to put the receiver into MOVIE mode.

MUSIC: Press to put the receiver into MUSIC mode.

STEREO/DIRECT: Switches the receiver into STEREO mode if it was in a different sound mode or toggles between DIRECT and STEREO mode.

5 ENTER button

Use this button to enter information concerning the SYSTEM SETUP, listening mode or the tuner.

6 STANDBY indicator

Lights when the receiver is in STANDBY mode.

7 Remote sensor

Receives the signals from the remote control.

8 Display

9 MCACC indicator
Lights when the ACOUSTIC CAL EQ is on. (After the Auto Surround Sound Setup has been completed the ACOUSTIC CAL EQ is set on and this display will light.)

10 i.LINK indicator (VSX-AX5i-S only)
Lights when an i.LINK -Audio-equipped component is selected.

11 MULTI CH IN button
Use this button to select the component you have hooked up to the MULTI CH IN terminals (for example, a DVD-Audio player).

12 ACOUSTIC EQ button
Press to switch on/off and select the type of acoustic calibration EQ.

13 MASTER VOLUME dial
Use to raise or lower the volume of the receiver.

14 MULTI JOG CONTROL buttons
SET UP: Press to switch the SYSTEM SETUP mode.

RETURN: Press to move back one step in the SYSTEM SETUP process.

15 SIGNAL SELECT button
Press SIGNAL SELECT repeatedly to select one of the following:

AUTO: If there are analog and digital signals input, the receiver automatically selects the digital signal.

DIGITAL: To select an optical or coaxial digital signal.

ANALOG: To select an analog signal.

16 HI-BIT HI-SAMPLING button
Use this button to switch the AUDIO SCALER mode on or off.

17 SB CH MODE button
Use this button to turn the surround back channels ON/OFF/AUTO or switch the virtual surround back mode between ON/OFF/AUTO.

18 Tuner control buttons
BAND: Press to select the AM or FM band.

CLASS: Press repeatedly to switch the preset station classes.

SELECT: Switches the ñ/+ buttons between station memory and frequency select modes.

–/+: Selects station memories or frequencies when using the tuner.

TUNER EDIT: Press to memorize and name a station for recall using the MULTI JOG and ENTER buttons.

19 CHARACTER/SEARCH button
Use to search for different program types in RDS mode.

20 EON MODE button
Use to search for different programs that are transmitting traffic or news information.

21 PHONES jack
Connect headphones for private listening (no sound will be heard through the speakers).

22 SPEAKERS (A/B) button
The use of this button depends on how the SURRBACK SYSTEM is set. If NORMAL SYSTEM is chosen this button toggles between A and OFF. If SECOND ZONE is chosen this button toggles between A, B, A+B and OFF. If FRONT BI-AMP is chosen this button toggles between A+B and OFF.

23 TONE CONTROL buttons
TONE button: This button switches between TONE on and off, which bypasses the tone circuitry.

BASS/TREBLE button: Use to select whether the bass or treble will be adjusted.

–/+ buttons: Use to adjust the frequency levels.

24 SETUP MIC jack
Plug in the setup mic here. This is very important in order to set up your system and get proper surround sound.

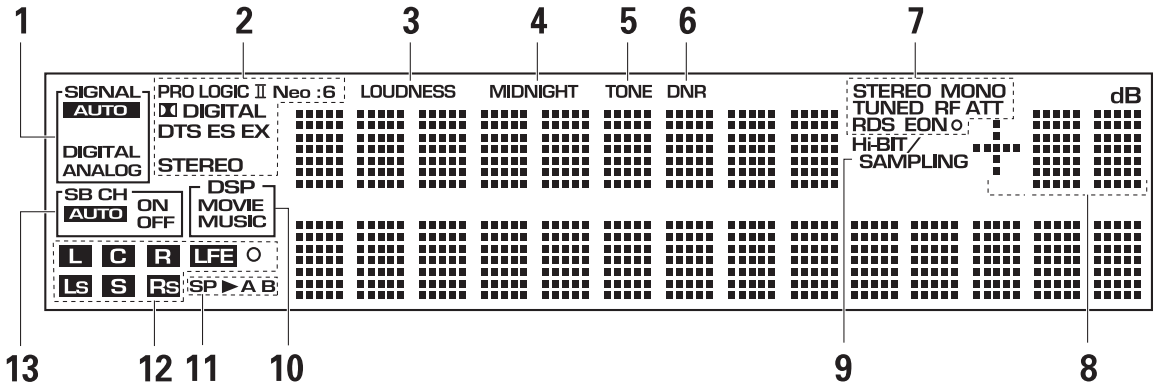
25 VIDEO INPUT jacks
DIGITAL IN: Digital input for connecting a game console, DVD player or video camera (etc.), that has an optical digital connection.

S-VIDEO: Video input for connecting a portable DVD player or video camera (etc.), that has an S video out.

VIDEO / AUDIO (L/R): Video input for connecting a portable DVD player or video camera (etc.), that has standard video/audio outputs.

8.2 DISPLAY

All the display information is explained and/or referenced here.



1 SIGNAL indicators

Light to indicate the input signal you selected.

AUTO: Lights when the receiver is set to select the input signal automatically.

DIGITAL: Lights when digital audio signals are selected.

ANALOG: Lights when analog signals are selected.

2 Digital format indicators

PRO LOGIC II: Lights during Dolby Pro Logic II processing.

NEO:6: Lights during NEO:6 processing.

DIGITAL: Lights when a Dolby Digital signal is detected.

DTS: Lights when a DTS signal is detected.

ES: Lights when playing back a DTS ES signal.

EX: Lights when playing back a Dolby Digital EX signal.

STEREO: Lights during two-channel playback.

3 LOUDNESS indicator

Lights when LOUDNESS is on.

4 MIDNIGHT indicator

Lights when MIDNIGHT is on.

5 TONE indicator

Lights when the TONE control is on.

6 DNR indicator

Lights when DIGITAL NR is on.

7 TUNER indicators

STEREO: Lights when an FM stereo broadcast is received in the auto stereo mode.

MONO: Lights when the tuner is set to receive FM broadcasts and when MPX mode is selected.

TUNED: Lights when a broadcast is received.

RF ATT (European model only)**:** Lights when the RF ATT is on.

RDS (European model only)**:** Lights when an RDS broadcast is received.

EON (European model only)**:** EON lights when it has been set. The dot indicator next to it lights when the station you are currently tuned to carries the EON data service.

8 Volume level indicator

9 Hi-BIT/SAMPLING indicator

Lights when the AUDIO SCALER mode is on.

10 DSP indicators

MOVIE: Lights when a MOVIE mode is selected. When a DSP MOVIE mode is selected DSP will light with a box around it.

MUSIC: Lights when a MUSIC mode is selected. When a DSP MUSIC mode is selected DSP will light with a box around it.

11 Speaker indicators

Lights to indicate the current speaker system, A and/or B.

12 Program Format indicators

For Dolby Digital or DTS sources: These indicators change according to which channels are active in the source. When all three **LS** (left surround), **S** (surround) and **RS** (right surround) light at the same time it means a source with a 6.1 channel playback flag is being used.

L – Left front channel.

C – Center channel.

R – Right front channel.

LS – Left surround channel.

S – Surround channel or Surround back channel.

RS – Right surround channel.

LFE – Low Frequency Effects channel.

– Lights when LFE signal is input.

13 SB CH indicators

Light to indicate the status of the surround back channels.

AUTO – Lights when the SB CH MODE or virtual surround back mode is set to AUTO.

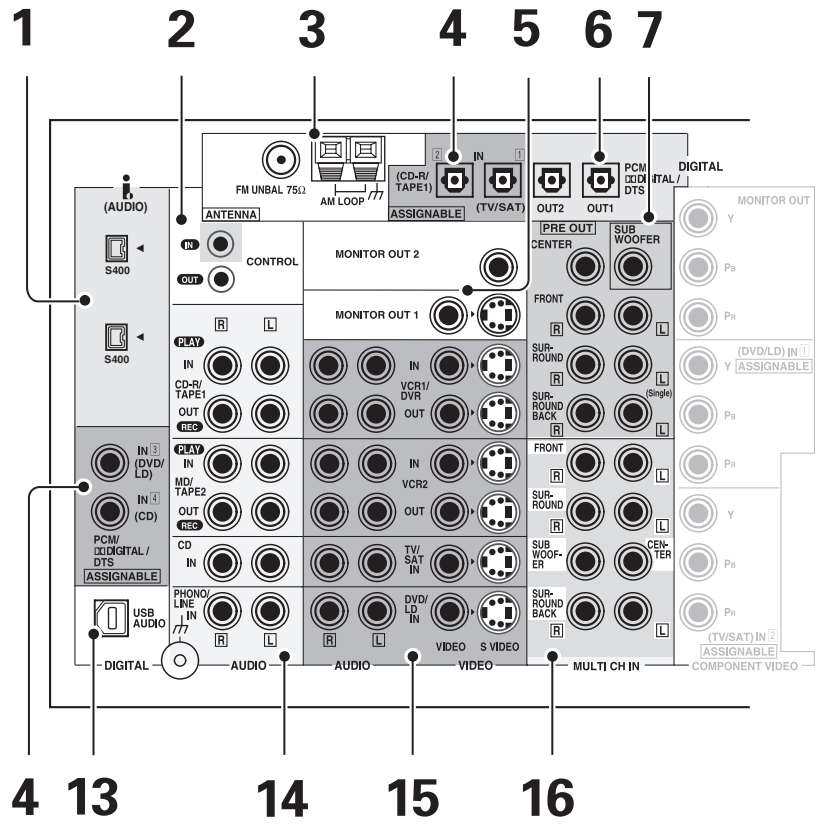
ON – Lights when the SB CH MODE or virtual surround back mode is set to ON.

OFF – Lights when the SB CH MODE or virtual surround back mode is set to OFF.

8.3 REAR PANEL

■ VSX-AX5i-S

All the terminals on the back panel are explained and/or referenced here.



1 (AUDIO) - i.LINK connectors

4-pin, S400 i.LINK connectors for connection to i.LINK-equipped players and other components. Each i.LINK connector acts simultaneously as both input and output.

2 CONTROL IN/OUT terminals

You can use these jacks to hook up other PIONEER equipment, that has a CONTROL terminal, so that you can control them all by pointing the remote control(s) at one remote sensor.

3 Radio antenna terminals

Hook up antennas for the radio tuner built into the receiver here.

4 DIGITAL IN terminals

Use these terminals to input the signal from a DVD, CD player or any other kind of digital player. To be able to play Dolby Digital and other surround soundtracks you need to make digital connections. To do this use the digital terminals here. If you don't connect as per the default settings you need to complete "Assigning the Digital Inputs" .

5 MONITOR OUT 1 & 2 terminals (connect a TV or monitor here)

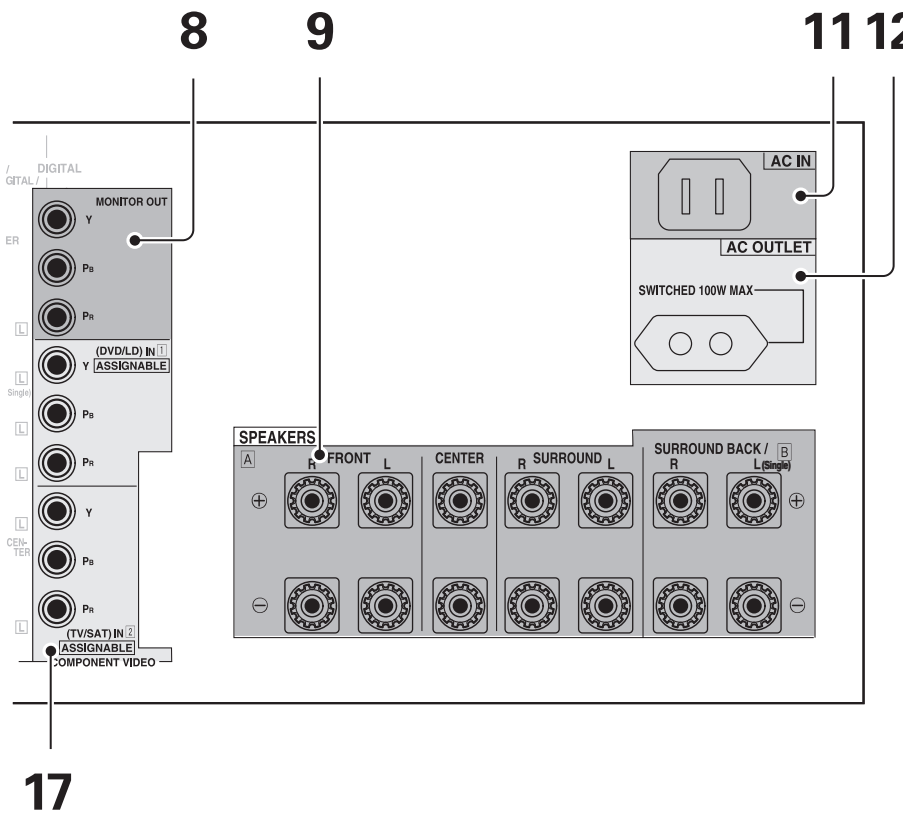
Use either of these terminals to output the video signal to your TV(s), video projector(s) or monitor(s). The on-screen displays to setup the receiver will only be output through MONITOR OUT 1.

6 DIGITAL OUT terminals

Use these terminals to output a digital signal to a DVD-R, CD-R, MD recorder or any other kind of digital recorder.

7 PRE OUT analog terminals (connect an amplifier here)

Use these terminals to output the audio signal from this amplifier to a different amplifier if that's how you choose to set up your system.



8 COMPONENT VIDEO MONITOR OUT terminals

Use these terminals to output the video signal from the COMPONENT VIDEO IN terminals to your TV.

9 SPEAKERS terminals

Use these terminals to connect speakers to the receiver. The FRONT, CENTER and SURROUND terminals are for the main speaker system and the SURROUND BACK speakers can be set to either the main system, the SECOND ZONE, or the FRONT BI-AMP.

11 AC IN

Hook up the power cord to this terminal.

12 AC OUTLET (switched, 100 W max)

Hook up an external component to the power supply of this receiver. Only do this with audio or video components being used in this system and never hook up heavy equipment (like TVs, heaters, air conditioners, refrigerators, etc.) to this receiver.

13 USB AUDIO terminal

Use this terminal to connect a PC to this receiver.

14 Audio input/output terminals (connect analog components here)

Use these terminals to input/output the audio signal from analog components (like a cassette deck or turntable). These are analog jacks.

15 Video components input/output terminals

Input/output signals from your video components (DVD, VCR, TV tuners, SAT tuners, etc.) here.

16 MULTI CH IN terminals

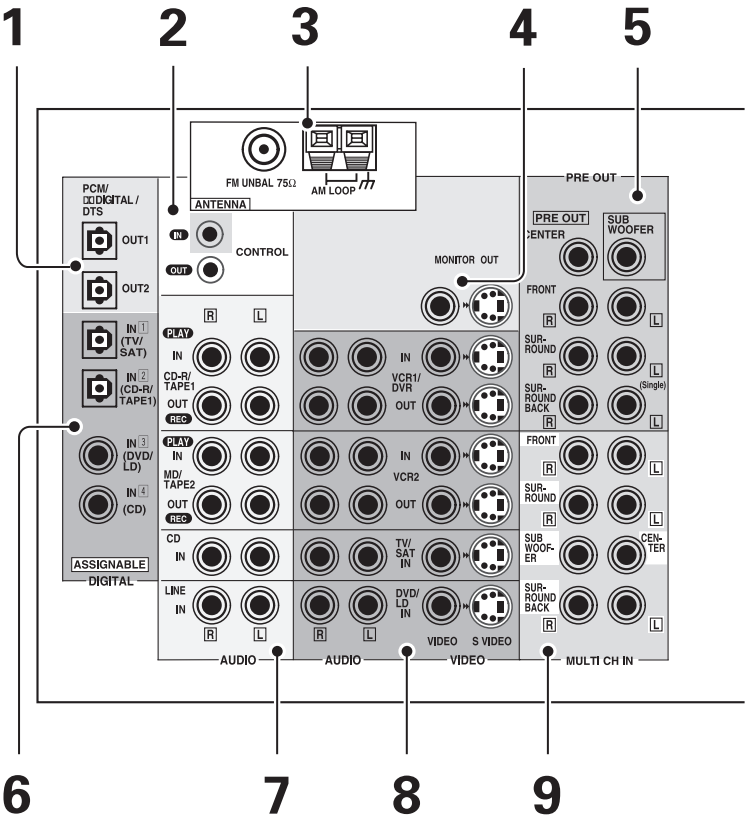
Use these terminals to input a multichannel surround signal (for example, a DVD-Audio signal) in an analog fashion. These are analog jacks.

17 COMPONENT VIDEO IN terminals

Use these terminals to hook up the video connections of your video components with this high quality method. Your components will have to have the terminals as well to take advantage of this kind of connection. If you don't connect as per the default settings you need to complete "Assigning the Component Video Inputs".

■ VSX-AX3-S, -K

All the terminals on the back panel are explained and/or referenced here.



1 DIGITAL OUT terminals

Use these terminals to output a digital signal to a DVD-R, CD-R, MD recorder or any other kind of digital recorder.

2 CONTROL IN/OUT terminals

You can use these jacks to hook up other PIONEER equipment, that has a CONTROL terminal, so that you can control them all by pointing the remote control(s) at one remote sensor.

3 Radio antenna terminals

Hook up antennas for the radio tuner built into the receiver here.

4 MONITOR OUT terminals (connect a TV or monitor here)

Use these terminals to output the video signal to your TV, video projector or monitor.

5 PRE OUT analog terminals (connect an amplifier here)

Use these terminals to output the audio signal from this amplifier to a different amplifier if thatís how you choose to set up your system.

6 DIGITAL IN terminals

Use these terminals to input the signal from a DVD, CD player or any other kind of digital player. To be able to play Dolby Digital and other surround soundtracks you need to make digital connections. To do this use the digital terminals here. If you donít connect as per the default settings you need to complete "Assigning the Digital Inputs" .

7 Audio input/output terminals (connect analog components here)

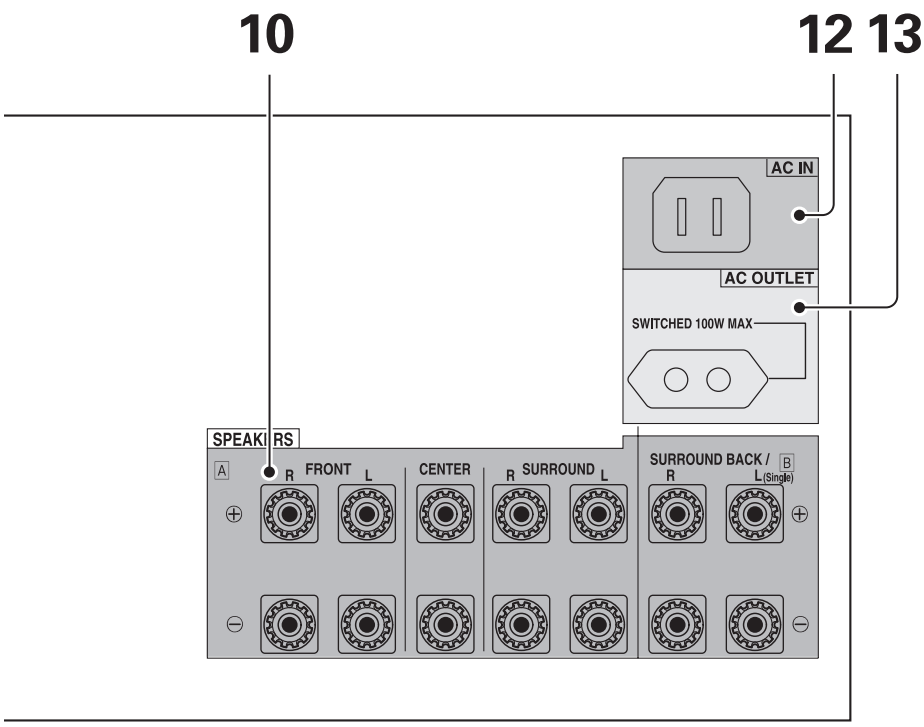
Use these terminals to input/output the audio signal from analog components (like a cassette deck or turntable). These are analog jacks.

8 Video components input/output terminals

Input/output signals from your video components (DVD, VCR, TV tuners, SAT tuners, etc.) here.

9 MULTI CH IN terminals

Use these terminals to input a multichannel surround signal (for example, a DVD-Audio signal) in an analog fashion. These are analog jacks.



10 SPEAKERS terminals

Use these terminals to connect speakers to the receiver. The FRONT, CENTER and SURROUND terminals are for the main speaker system and the SURROUND BACK speakers can be set to either the main system, the SECOND ZONE, or the FRONT BI-AMP.

12 AC IN

Hook up the power cord to this terminal.

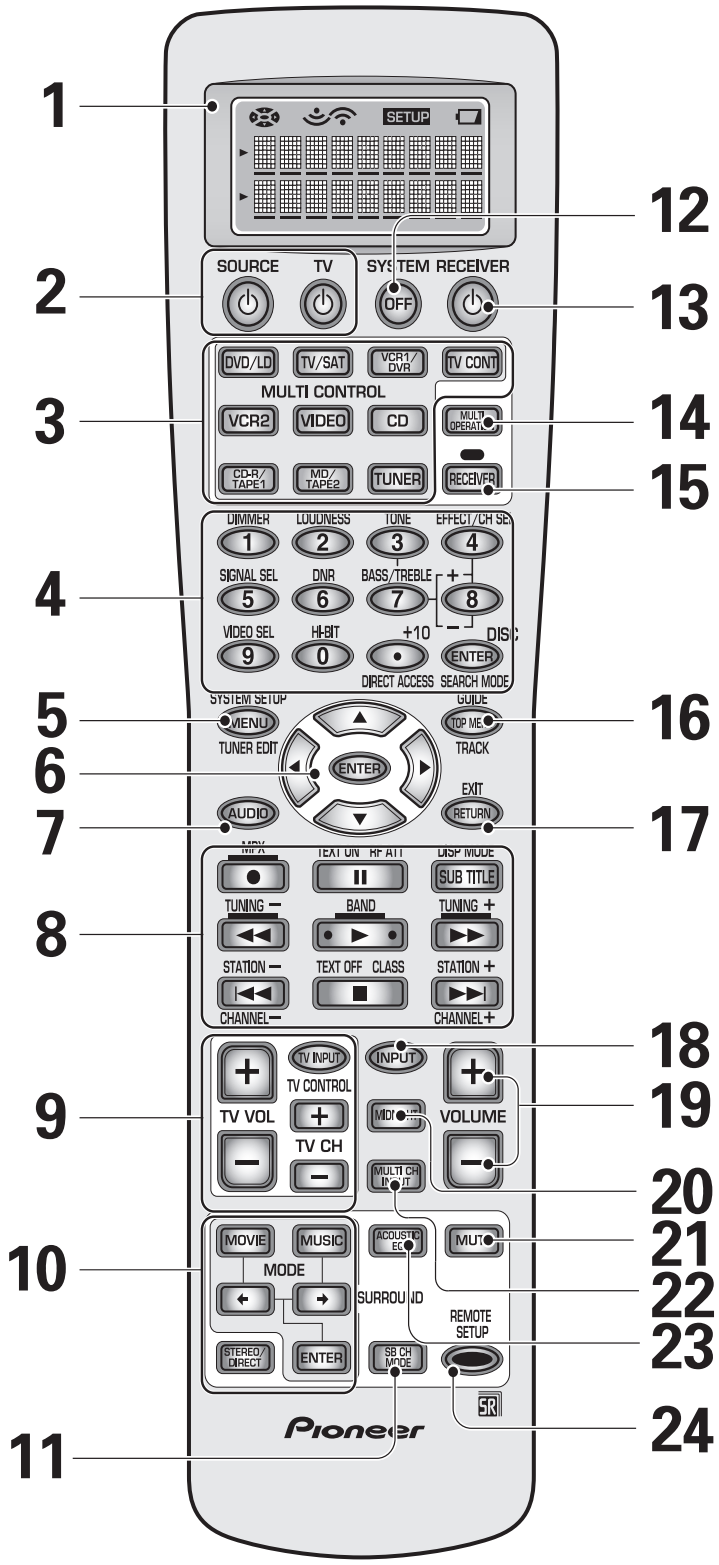
13 AC OUTLET (switched, 100 W max)

Hook up an external component to the power supply of this receiver. Only do this with audio or video components being used in this system and never hook up heavy equipment (like TVs, heaters, air conditioners, refrigerators, etc.) to this receiver.

8.4 REMOTE CONTROL UNIT

■ VSX-AX5i-S

This page describes the buttons on the remote control used to operate the receiver.



1 Remote Control Display Screen

2 SOURCE ⏻ button

Use this button to turn on/off other components. You must input the preset code in order to use this function.

TV ⏻ button

This is a dedicated TV button. Use it to turn on/off your TV.

3 MULTI CONTROL buttons

These buttons are the basic controls that switch the mode of the receiver and the remote control, which allows you to control your other components.

TV CONT: Press so that the remote control can operate the TV control commands.

4 Number buttons

These can be used for many purposes depending on the mode of the remote control.

When in receiver mode the buttons operate as below:

DIMMER button

Use to adjust the brightness of the receiver's display.

LOUDNESS button

Switches the LOUDNESS mode on or off.

TONE button

This button switches between TONE on and off, which bypasses the tone circuitry.

BASS/TREBLE buttons

Use to select whether the bass or treble will be adjusted.

(+/–) buttons

Use to adjust the TONE level, effect level, channel level and sound delay as well as make Dolby Pro Logic II MUSIC parameter settings.

EFFECT/CH SEL button
Switches between the different channels so you can add volume individually to each channel with the + and – buttons. Also selects EFFECT mode, Dolby Pro Logic II MUSIC parameters and sound delay settings.
You can then use the + and – buttons to make these adjustments.

SIGNAL SEL button
Press repeatedly to select one of the following:

AUTO: If there are analog and digital signals input, the receiver automatically selects the digital signal.

DIGITAL: To select an optical or coaxial digital signal.

ANALOG: To select an analog signal.

DNR (DIGITAL NR) button
Switches the DIGITAL NR on or off.

VIDEO SEL button
Use to toggle between the different video input possibilities.

HI-BIT button
Use this button to switch the AUDIO SCALER on or off.

5 SYSTEM SETUP button
Use for all system setups, including the speaker and sound systems.
For a DVD player use this button to bring up the DVD menu and for a tuner use this button in the same way as the TUNER EDIT button.

6 ▲/▼/◄/►/ENTER buttons
These buttons can be used for a variety of operations in the SYSTEM SETUP menu.

These buttons are used to control the menus for other components when in those modes (DVD, digital TV tuner, satellite tuner, cable tuner, etc.). In TUNER mode, they can select a station and/or a frequency.

7 AUDIO button
Use to switch the audio tracks of a DVD when in DVD mode.

8 Command button for other components
Use these buttons to control other components you selected with the MULTI CONTROL buttons. You must input the preset code in order use this function.

9 TV CONTROL buttons
The following buttons are used to control the TV only and can be used once they are preset to control your TV.

TV INPUT: Press to select the input source for the TV.

TV CH +/– : Use these buttons to change the channel of the TV.

TV VOL +/– : Press to control the volume of the TV.

10 Listening mode buttons
SURROUND buttons (MOVIE, MUSIC, ⬅➡ & ENTER):

MOVIE: Press to put the receiver into MOVIE listening mode.

MUSIC: Press to put the receiver into MUSIC listening mode.

⬅➡: Use to select the MOVIE or MUSIC listening mode.

ENTER: Use this button to enter information concerning the listening modes.

STEREO/DIRECT: Switches the receiver into STEREO mode if it was in a different sound mode or toggles between DIRECT and STEREO mode.

11 SB CH MODE button
Use this button to turn the surround back channels ON/OFF/AUTO or switch the virtual surround back mode between ON/OFF/AUTO.

12 SYSTEM OFF button
This button turns off components in two ways. First, when pressed it will turn off all PIONEER components. Secondly, any component that has programmed into the SYSTEM OFF settings will be turned off.

13 ⏻ RECEIVER (STANDBY/ON) button
Press to turn power of the receiver on or to standby (off).

14 MULTI OPERATION button
Use this button to start the multi operation mode.

15 RECEIVER button
Use this button to switch the remote control into receiver mode in order to get certain receiver functions or do receiver setups.

16 TOP MENU/GUIDE button

Use to find stations or menus on a digital TV tuner. For a DVD player use this button to bring up the DVD menu.

17 RETURN button

When you are in a receiver setup operation this button will go back one step in the SYSTEM SETUP procedure. When you are using your DVD menu screen this button acts the same as the DVD player's "Return" button. When you are using cable tuners, satellite tuners or digital TV tuners this button will either exit you from the menu screen or act like a "Return" button above, depending on the maker of the unit.

18 INPUT button

Press to select an input source. The button will cycle through all the possible sources including USB, PHONO and i.LINK components.

19 VOLUME (+/–) buttons

Use to raise or lower the volume of the receiver.

20 MIDNIGHT button

Switches the MIDNIGHT listening mode on or off.

21 MUTE button

Press to mute or restore the volume.

22 MULTI CH INPUT button

Use this button to select the component you have hooked up to the MULTI CH IN terminals (for example, a DVD-Audio player).

23 ACOUSTIC CAL button

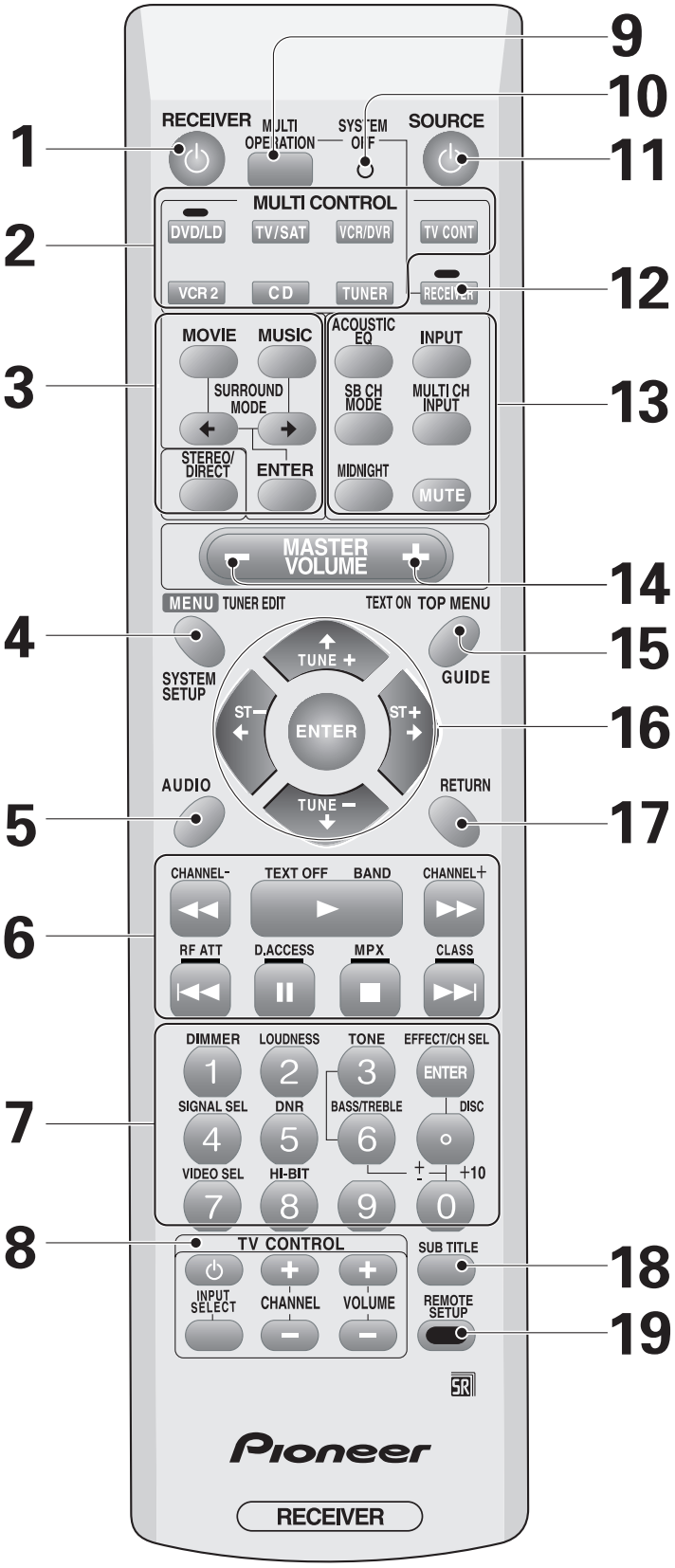
Press to switch on/off and select the type of acoustic calibration EQ.

24 REMOTE SETUP button

Use to customize the remote control functions and the remote control itself.

■ VSX-AX3-S, -K

This page describes the buttons on the remote control used to operate the receiver.



1 ⏻ RECEIVER (STANDBY/ON) button

Press to turn power of the receiver on or to standby (off).

2 MULTI CONTROL buttons

These buttons are the basic controls that switch the mode of the receiver and the remote control, which allows you to control your other components.

TV CONT: Press so that the remote control can operate the TV control commands.

3 Listening mode buttons

SURROUND buttons (MOVIE, MUSIC, ⬅➡ & ENTER):

MOVIE: Press to put the receiver into MOVIE listening mode.

MUSIC: Press to put the receiver into MUSIC listening mode.

⬅➡ : Use to select the MOVIE or MUSIC listening mode.

ENTER: Use this button to enter information concerning the listening modes.

STEREO/DIRECT: Switches the receiver into STEREO mode if it was in a different sound mode or toggles between DIRECT and STEREO mode.

4 SYSTEM SETUP button

Use for all system setups, including the speaker and sound systems. For more information see ìSetting Up for Surround Soundî starting on page 36. For a DVD player use this button to bring up the DVD menu and for a tuner use this button in the same way as the TUNER EDIT button.

5 AUDIO button

Use to switch the audio tracks of a DVD when in DVD mode.

6 Command button for other components

Use these buttons to control other components you selected with the MULTI CONTROL buttons. You must input the preset code in order use this function.

7 Number buttons

These can be used for many purposes depending on the mode of the remote control.

When in receiver mode the buttons operate as below:

DIMMER button

Use to adjust the brightness of the receiverís display.

LOUDNESS button

Switches the LOUDNESS mode on or off.

TONE button

This button switches between TONE on and off, which bypasses the tone circuitry.

BASS/TREBLE buttons

Use to select whether the bass or treble will be adjusted.

(+/–) buttons

Use to adjust the TONE level, effect level, channel level and sound delay as well as make Dolby Pro Logic II MUSIC parameter settings.

EFFECT/CH SEL button

Switches between the different channels so you can add volume individually to each channel with the + and – buttons. Also selects EFFECT mode, Dolby Pro Logic II MUSIC parameters and sound delay settings.
You can then use the + and – buttons to make these adjustments.

SIGNAL SEL button

Press repeatedly to select one of the following:

AUTO – If there are analog and digital signals input, the receiver automatically selects the digital signal.

DIGITAL – To select an optical or coaxial digital signal.

ANALOG – To select an analog signal.

DNR (DIGITAL NR) button

Switches the DIGITAL NR on or off.

VIDEO SEL button

Use to toggle between the different video input possibilities.

HI-BIT button

Use this button to switch the AUDIO SCALER on or off.

8 TV CONTROL buttons

The following buttons are used to control the TV only and can be used once they are preset to control your TV.

TV ⏻ button

This is a dedicated TV button. Use it to turn on/off your TV.

INPUT SELECT: Press to select the input source for the TV.

CHANNEL +/– : Use these buttons to change the channel of the TV.

VOLUME +/– : Press to control the volume of the TV.

9 MULTI OPERATION button

Use this button with MULTI OPERATION and SYSTEM OFF.

10 LED display

This display flashes when a command is sent from the remote control to the receiver. It also flashes at other times, for example when teaching the receiver preset codes.

11 SOURCE ⏻ button

Use this button to turn on/off other components. You must input the preset code in order to use this function.

12 RECEIVER button

Use this button to switch the remote control into receiver mode in order to get certain receiver functions or do receiver setups.

13 Receiver functions

ACOUSTIC EQ button

Press to switch on/off and select the type of acoustic calibration EQ.

INPUT button

Press to select an input source. The button will cycle through all the possible sources.

SB CH MODE button

Use this button to turn the surround back channels ON/OFF/AUTO or switch the virtual surround back mode between ON/OFF/AUTO.

MULTI CH INPUT button

Use this button to select the component you have hooked up to the MULTI CH IN terminals (for example, a DVD-Audio player).

MIDNIGHT button

Switches the MIDNIGHT listening mode on or off.

MUTE button

Press to mute or restore the volume.

14 MASTER VOLUME (+/–) buttons
Use to raise or lower the volume of the receiver.

15 TOP MENU/GUIDE button
Use to find stations or menus on a digital TV tuner. For a DVD player use this button to bring up the DVD menu.

16 ▲/▼/◄/►/ENTER buttons
These buttons can be used for a variety of operations in the SYSTEM SETUP menu.

These buttons are used to control the menus for other components when in those modes (DVD, digital TV tuner, satellite tuner, cable tuner, etc.). In TUNER mode, they can select a station and/or a frequency.

17 RETURN button
When you are in a receiver setup operation this button will go back one step in the SYSTEM SETUP procedure. When you are using your DVD menu screen this button acts the same as the DVD player's ìReturnî button. When you are using cable tuners, satellite tuners or digital TV tuners this button will either exit you from the menu screen or act like a ìReturnî button above, depending on the maker of the unit.

18 SUB TITLE button
Use to switch the subtitles on a DVD player or disc.

19 REMOTE SETUP button
Use to customize the remote control functions and the remote control itself.